Advancing and Sustaining the Community Health Worker Workforce in Baltimore City: A Call to Action for Key Stakeholders

By Chidinma A. Ibe, Ph.D., and Obie S. McNair, MPH October 2021



A B E L L F O U N D A T I O N

Author's Acknowledgements

The authors would like to sincerely thank the following key informants, for taking the time to participate in interviews and share their time, insights, and opinions in support of this report:

- **Tina Backe**, MA, Health Policy Analyst, Office of Population Health Improvement
- Paula Blackwell, LPN, Executive Director, Central MD Area Health Education Center;
 Commissioner, Maryland Commission on Aging
- Sarah Flammang, MBA, VP of Operations and Administration, Baltimore Health Corps
- **Kimberly Hiner**, MPH, Acting Director, Office of Population Health Improvement, Maryland Department of Health
- Traci Kodeck, MPH, CEO, HealthCare Access Maryland
- **Anne Langley**, JD, MPH, fomer Director, Center for Population Health Initiatives, Maryland Department of Health
- Michelle LaRue, MD, Director, Health and Social Services, CASA
- **Ryan Moran**, DrPH, Assistant Vice President, Care Transformation, MedStar Health; Appointee, State of Maryland Community Health Worker Advisory Committee
- **Helen Owhonda**, Community Health Worker, Total Health Care
- Anthony Roberts, Chief of Grants Administration, Health Services Cost Review Commission
- **Tiffany Scott**, Community Health Worker and Consultant; Chair, Maryland Community Health Worker Association; Appointee, State of Maryland Community Health Worker Advisory Committee
- Madeleine Shea, PhD, MBA, Principal, Health Management Associates, Inc.
- Magdalena Tagliaferro, Program Manager, Baltimore Alliance for Careers in Healthcare
- Katie Wunderlich, MPP, Executive Director, Health Services Cost Review Commission

The Abell Foundation is a funder of the Baltimore Health Corps program, a community health worker program discussed in this report.



The Abell FoundationSuite 2300
111 S. Calvert Street
Baltimore, MD 21202-6174

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
COMMUNITY HEALTH WORKERS ARE ESSENTIAL FOR ADVANCING HEALTH EQUITY	5
SOCIAL DETERMINANTS OF HEALTH AND THE CONTEXT OF BALTIMORE CITY	6
NATIONAL LANDSCAPE OF THE COMMUNITY HEALTH WORKER PROFESSION	8
Milestones in the Evolution of the CHW Workforce in the United States	
National Funding Environment for CHWs	
Approaches to State-level Medicaid Reimbursement	
Summary of Key Takeaways from Other States and Potential Implications for Baltimore City and State Community Health Workers	20
MARYLAND'S HEALTH CARE ENVIRONMENT AND EFFORTS TO STANDARDIZE THE CHW WORKFORCE	20
Health Care Infrastructure and Transformation Initiatives Favorable to Supporting the CHW Model	
State Legislation and Regulations Supporting the CHW Workforce	
CHW WORKFORCE IN BALTIMORE CITY: UNIQUE PROGRAMS	
AND CONTEXTUAL ISSUES	25
Common CHW Services in Baltimore City	26
Perceptions of Certification and Sustainable Funding for Baltimore's CHWs	26
Novel CHW Initiatives in Baltimore City	
Challenges Faced by Baltimore's CHW Workforce	29
GENERATING SUSTAINABLE FINANCING FOR BALTIMORE	
CITY CHWS	
Recommendations	32
CONCLUSIONS	38

Advancing and Sustaining the Community Health Worker Workforce in Baltimore City: A Call to Action for Key Stakeholders

by Chidinma A. Ibe, Ph.D., and Obie S. McNair, MPH

EXECUTIVE SUMMARY

In Baltimore City, the impact of deeply entrenched structural factors, including racism and classism, has shaped the landscape of health, civic, and economic inequities observed among the city's predominantly Black neighborhoods compared to its predominantly white neighborhoods. These same structural forces influence the distribution of negative social determinants of health, such that Baltimore's ethnic minority communities are more likely to experience poverty, food insecurity, housing instability, limited access to health care, and poor transportation. The extent and endurance of the city's health disparities require local solutions that are person- and family-centered, culturally relevant, and responsive to the needs of historically marginalized communities.

Community health worker programs are one such solution. Community health workers (CHWs) are frontline public health personnel who share common attributes with, and/or have a nuanced understanding of, the communities they serve. Their lived experiences are central to their ability to link members of underserved communities with needed health care and social services, and their interpersonal skills allow them to serve as a bridge between the communities they support and the medical, public health, and social service organizations they work for. Moreover, CHWs' efforts mitigate the impact of social determinants of health, by

linking individuals and families to needed medical, public health, and social services, and providing instrumental, emotional, and social support. CHW programs improve health outcomes across a multiplicity of acute and chronic diseases and are cost effective.

CHWs are leaders within their communities, and the body of evidence demonstrating the utility of CHW programs is strong. However, sustainable funding poses a major barrier to the broader adoption of CHWs in communitybased, medical, and public health settings. The patchwork nature of funding to support CHW-based initiatives threatens the health of those who need their efforts most, and it undermines community members' access to this unique workforce. Successfully addressing health disparities in Baltimore City requires a concerted effort to advance sustainable financing for CHWs. Thus, this report is a call to action that aims to galvanize CHWs and their allies, as well as funders, policymakers, and other key stakeholders, to commit to developing and implementing long-term funding mechanisms for CHW programs.

This report aims to achieve the following objectives:

A. Identify strategies for CHW compensation across the country that are particularly relevant for CHWs working in Baltimore City.

Among the prevailing financing models used around the United States to

- support CHW programs, Medicaid reimbursement is the most promising strategy to achieve sustainable funding. States that provide Medicaid reimbursement for CHW services had a clear articulation of who CHWs are and their scope of practice. They have also established training and/or certification processes. Importantly, multistakeholder engagement between CHWs, employers, and payers was central to delineating which services are eligible for reimbursement.
- B. Clarify how statewide policies impact the financial underpinnings of the CHW model and their implications for **Baltimore City.** Maryland has a unique all-payer hospital rate regulation system and global budget revenue structure. Its health system transformation efforts lend themselves to the incorporation of CHWs into a population health-based system underpinned by addressing social determinants of health. Further, propelled by recommendations from CHWs and other key stakeholders, the state of Maryland has enacted legislation that has standardized key facets of CHWs' workforce development, including their scope of work and credentialing processes. This has important implications for laying the foundation to support the proliferation of CHW programs throughout Baltimore City.
- C. Ascertain the contextual factors that influence the scale of the CHW workforce in Baltimore City, and their scope of practice. We conducted interviews with 14 key informants representing five state- and citylevel stakeholder groups: (1) CHWs; (2) entities that train CHWs; (3) CHW employers; (4) members of the Maryland Department of Health; and (5) payors/financial administrators. These discussions revealed that the tasks assumed by CHWs in Baltimore City fall well within CHWs' typical scope of practice and are contextually responsive to the common issues affecting the city's residents. Most key informants were supportive of Medicaid reimbursement and the state's certification process. Variability in the quality of supervision and low compensation (and its implications for limited career trajectories within the CHW profession) were cited as the most challenging issues confronting Baltimore's CHWs. At the same time, these interviews illuminated the degree to which two major initiatives stand to increase the number and impact of the CHW workforce in the city: the Baltimore Population Health Workforce Collaborative, funded by the Population Health Workforce Support for Disadvantaged Areas Program and

administered by the Health Services

"The extent and endurance of the city's health disparities require local solutions that are person- and family-centered, culturally relevant, and responsive to the needs of historically marginalized communities."

- Cost Review Commission; and the Baltimore Health Corps, funded by a combination of federal and philanthropic sources.
- D. Propose a strategic roadmap that will prepare the state of Maryland and Baltimore City to support the long-term financial viability of the CHW model in the city and state.

 The roadmap to generating sustainable funding for CHWs' services is composed of four main recommendations, bearing
 - Conduct a comprehensive, systematic appraisal of Baltimore City's CHW workforce, to address gaps in our understanding of the CHW workforce in Baltimore City.

in mind that CHWs must be at the helm

of these efforts:

2. Increase the city- and statewide organizational capacity to support the CHW workforce, through support from state-level and philanthropic funds, and the creation of a Baltimore City CHW task force.

- **3.** Pursue long-term financing strategies through statewide payment reform, Medicaid reimbursement, and philanthropic endeavors.
- **4.** Convene key stakeholders to engage in continual advocacy for the CHW workforce.

Baltimore City is well positioned to serve as a model of how best to support members of the CHW workforce who live and work in urban areas. Shoring up key aspects of CHWs' professional development, and creating sustainable financing arrangements, are central to bolstering this impactful workforce. Doing so has important ramifications for reducing health disparities by ameliorating the adverse impact of social determinants of health, improving employment rates, and, ultimately, promoting equity for members of systematically marginalized communities.

COMMUNITY HEALTH WORKERS ARE ESSENTIAL FOR ADVANCING HEALTH EQUITY

In their seminal Robert Wood Johnson Foundation report defining health equity, Braveman and colleagues assert that "health equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care."1 Thus, health equity interventions are those that are geared toward "reducing and eliminating disparities in health and its determinants that adversely affect excluded or marginalized groups."² Indeed. the extent and endurance of health inequities in Baltimore City require local solutions that are person- and family-centered, culturally relevant, and responsive to the needs of communities bearing a disproportionate brunt of disease morbidity and mortality. The use of community health workers (CHWs) has long been championed as a culturally sensitive vehicle to advance health equity and reduce intransigent disparities.

Since CHWs tend to come from the very communities they endeavor to support, it is thought that the shared ethnic, linguistic, socioeconomic, and/or experiential ties that bind them to historically marginalized, minoritized communities make them well suited to engage in health promotion activities geared toward ameliorating the impact of social determinants of health (SDOH).^{3,4,5,6}

There is a strong body of evidence linking exposure to CHW-delivered services with improved chronic disease self-management behaviors, health outcomes across a range of conditions, and health care utilization.^{7,8,9,10,11,12,13,14,15} There is also compelling evidence suggesting that CHW-

delivered interventions are cost-effective and yield a high return on investment: Kangovi and colleagues found that every dollar invested in a randomized controlled trial featuring a CHW-delivered intervention that targeted unmet social needs yielded an annual return of \$2.47 to an average Medicaid payer. 16 Similarly, Gaskin et al.'s evaluation of Maryland's Health Enterprise Zones suggests that the inclusion of CHWs within multidisciplinary care teams that facilitated care coordination and health education activities was associated with reduced inpatient admissions, and that the savings generated therein outweighed the cost of the initiative. 17

As CHWs, their advocates, and other key stakeholders grapple with CHWs' professional identity formation, scope of work, and facets of workforce development, one issue that is widely acknowledged as a barrier to broader adoption of the CHW model is sustainable funding. The predominance of short-term grant funding for CHW-based initiatives threatens the health of those who are in greatest need of the forms of support proffered by CHWs, as well as the professional trajectories and development of CHWs. While CHWs' lived experiences make them both uniquely qualified to support systematically disenfranchised communities, and central to any endeavor to reduce health disparities, unstable funding threatens to undermine a workforce whose focus on addressing SDOH is upheld by principles of health equity and community capacity building. Simply put, without a concerted effort to support the CHW model through a combination of sustainable approaches, particularly Medicaid reimbursement, those who are in the greatest need of CHWs' support will not have access to them.

It is an especially opportune time for the state of Maryland to pursue sustainable financing for CHWs, in view of current efforts underway to expand and strengthen Baltimore City's CHW workforce. Thus, the primary goal of

According to the Community Health Worker Section of the American Public Health Association, "A community health worker (CHW) is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the worker to serve as a liaison/ link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. A community health worker also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support and advocacy."

this report is to support policy development and implementation of long-term funding mechanisms for Baltimore's CHWs. We searched peer-reviewed and grey literature to uncover how different states approach creating robust funding sources for CHWs. To clarify the local context, we solicited insights from 14 key informants who represent five different stakeholder groups: 1) CHWs; 2) entities that train CHWs; 3) CHW employers; 4) members of the Maryland Department of Health; and 5) payors/financial administrators. This report was guided by the following objectives:

- Identify strategies for CHW compensation across the country that are particularly relevant for CHWs working in Baltimore City.
- 2. Understand the ways in which statewide policies impact the financial underpinnings of the CHW model and their unique implications for Baltimore City.
- **3.** Ascertain the contextual factors that influence the scale of the CHW workforce in Baltimore City, and their scope of practice.
- **4.** Propose a strategic roadmap that will prepare the state of Maryland and Baltimore City to support the long-term financial viability of the CHW model in the city and state.

SOCIAL DETERMINANTS OF HEALTH AND THE CONTEXT OF BALTIMORE CITY

According to the Centers for Disease Control, health disparities are defined as "preventable differences in the burden of disease, injury, violence, or in opportunities to achieve optimal health experienced by socially disadvantaged racial, ethnic, and other population groups, and communities." Health disparities have endured for hundreds of years in the United States. 19 Occurring across a multiplicity of

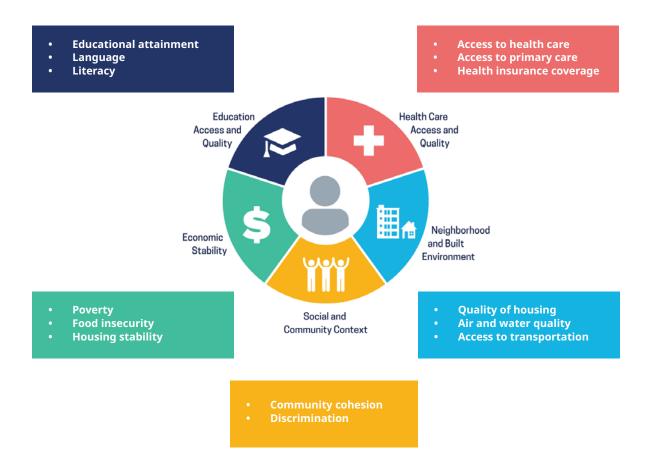


Figure 1: Healthy People 2030 Social Determinants of Health Domains

health conditions, their persistence is rooted in structural factors such as racism, classism, sexism, ageism, ableism, and homophobia. Their intersection shapes the social, political, economic, and environmental conditions that create and perpetuate social determinants of health. Braveman and colleagues define social determinants of health as the constellation of nonmedical factors that influence health. and they differentiate between upstream and downstream SDOH.20 Whereas the aforementioned structural factors constitute upstream SDOH, i.e., the root causes of health and health disparities, downstream SDOH are more conspicuous and, consequently, the target of most public health interventions.²¹ They may include individuals' health-related

knowledge, attitudes, beliefs, and behavior, or access to and receipt of recommended care. The complex causal pathways between upstream and downstream SDOH are such that neighborhood conditions, education, income and wealth, racism, and stress independently and conjointly function to affect the health and overall well-being of members of marginalized communities.²²

Figure 1, adapted from the Centers for Disease Control's delineation of social determinants of health for Healthy People 2030, encapsulates five overarching domains of upstream SDOH—health care access and quality, neighborhood and built environment, social and community context, economic stability,

and education access and quality—as well as their downstream correlates (summarized within their corresponding boxes). Although it is not explicitly included in this model, the criminal justice system is a critical social determinant of health that circumscribes the extent to which individuals and communities at large are able to achieve and sustain good health in all of its dimensions.

Interlocking upstream and downstream SDOH are at the heart of stark disparities in Baltimore City, and these disparities do not occur in a vacuum. Historically, a confluence of housing policies and practices have left an indelible mark on the sociodemographic, cultural, and economic landscape of Baltimore City's neighborhoods. The city's long record of creating and instituting measures to restrict racial/ethnic minorities, foreigners, and Jewish people to specific neighborhoods reached a dubious milestone in 1910, when Baltimore became the first city in the country to enact a municipal segregation ordinance prohibiting Blacks from moving to white residential blocks.^{27,28,29} The ordinance was repealed when the U.S. Supreme Court struck it down in 1917, only to be replaced by exclusionary practices that prevented Blacks from renting or purchasing properties in white neighborhoods, achieved through deed restrictions, restrictive covenants, and private agreements.

The resulting racial/ethnic segregation in Baltimore's neighborhoods was further exacerbated by the federal government's policy of refusing to insure mortgages in Black neighborhoods, a practice known as "redlining," which deprived these neighborhoods of needed capital investments. Redlining was buttressed by predatory lending, blockbusting, and other policies and practices that segregated Black/African Americans residing in Baltimore to areas in the east, west, and portions of the south sections of the city. The amalgamation of racially driven policies and practices had the effect of concentrating poverty, disadvantage,

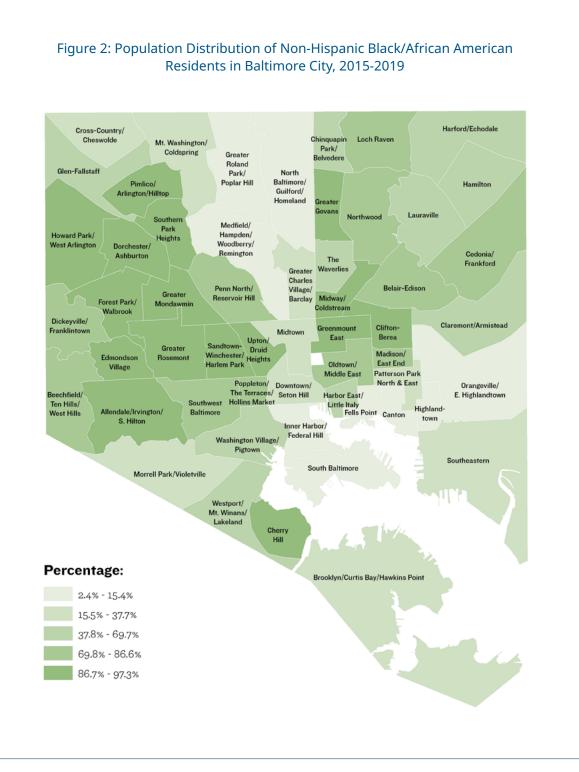
and systemic disinvestment in predominantly Black neighborhoods in Baltimore City, and entrenching wealth both in the city's predominantly white neighborhoods and its surrounding suburbs.^{30,31,32,33}

Lawrence T. Brown, Ph.D., implicates Baltimore's hypersegregation as a fundamental root cause of long-standing health, civic, and economic inequities between the affluent, predominantly white neighborhoods that stretch from the Inner Harbor through the center of the city, which Dr. Brown refers to as the "White L," and the predominantly Black, poorer neighborhoods flanking them, coined the "Black Butterfly."34 Table 1 contains data collected by the Baltimore City Health Department for its 2017 Neighborhood Profiles and provides a snapshot of the realities of the intractable health disparities between these communities. 35,36,37,38 This is also illuminated in Figures 2 and 3, maps of Baltimore City that depict the distribution of residents by race/ethnicity (Figure 2)³⁹ and the proportion of households living below the poverty line (Figure 3).⁴⁰ The striking differences between the White L neighborhoods and their Black Butterfly counterparts highlight the impact of programs, policies, laws, and practices that gave rise to structural racism and disinvestment and, with it, reduced quality of life, as well as poorer health and social outcomes, in Black neighborhoods.

NATIONAL LANDSCAPE OF THE COMMUNITY HEALTH WORKER PROFESSION

Milestones in the Evolution of the CHW Workforce in the United States

The use of CHWs for health promotion activities has increased significantly over the past 25 to 30 years in the United States.



Source: American Community Survey

Figure 3: Percent of Family Households Living Below the Poverty Line in Baltimore City, 2015-2019 Harford/Echodale Cross-Country/ Cheswolde Loch Raven Mt. Washington/ Park/ Coldspring Greater Belvedere Roland Glen-Fallstaff North Park/ Poplar Hill Baltimore/ Pimlico/ Hamilton Guilford/ Arlington/Hilltop Homeland Greater Govans Lauraville Southern Medfield/ Howard Park/ Hampden/ Heights West Arlington Woodberry/ Dorchester/ Remington Cedonia/ Frankford Greater Charles Penn North/ Belair-Edison Village/ Barclay Forest Park/ Mondawmin Coldstream Dickeyville/ Claremont/Armistead Clifton-Franklintown East Winchester/ Harlem Park Greater East End Village Patterson Park Middle East Poppleton/ Downton The Terraces/ Seton H Hollins Market Orangeville/ Harbor East/ Little Italy Fells Point Canton Beechfield/ Seton Hill E. Highlandtown Ten Hills/ Highland-Allendale/Irvington/ West Hills Baltimore town Inner Harbor/ Washington Village/ Pigtowr Southeastern South Baltimore Morrell Park/Violetville Westport/ Mt. Winans/ Lakeland Percentage: Brooklyn/Curtis Bay/Hawkins Point 0.0% - 6.5% 6.6% - 13.3% 13.4% - 20.5% 20.6% - 29.8% 29.9% - 41.7%

Source: American Community Survey

Table 1: Comparison of Selected Demographic Characteristics, Social Determinants of Health, and Health Outcomes Between "White L" and "Black Butterfly" Neighborhoods in Baltimore City^{41,42,43,44}

			"Whi	te L"	"Black	Butterfly"
	Indicator	Baltimore City	Greater Roland Park/ Poplar Hill	Inner Harbor/ Federal Hill	Madison/ East End	Sandtown- Winchester/ Harlem Park
Demographic	Total population	622,454	7,620	13,332	7,204	15,518
characteristics	Age distribution					
	% 0-17 years	21.2	20.4	11.6	29.5	26.0
	% 18-24 years	11.3	9.1	9.4	14.6	10.7
	% 25-44 years	30.1	20.1	48.8	25.0	22.1
	% 45-64 years	25.3	29.8	18.7	24.4	29.7
	% 65+ years	12.1	20.6	11.5	6.5	11.4
	Sex/Gender					
	% Male	47.1	49.7	48.9	48.4	44.8
	% Female	52.9	50.3	51.1	51.6	55.2
	Race/Ethnicity					
	% Black or African American	62.8	6.9	13.0	89.9	96.7
	% White	30.3	82.6	79.2	5.2	0.8
	% Asian	2.6	7.0	4.8	0.1	0.4
	% Hispanic/Latino (ethnicity)	4.6	2.9	4.7	7.0	0.4
Education access and	% of residents 25 years and older with a high school degree or less	47.2	6.9	20.3	72.0	69.8
quality	% of residents 25 years and older with a bachelor's degree or more	28.7	80.4	67.0	6.3	5.5
	% of limited English-speaking proficiency	3.4	3.1	2.3	3.5	1.3
Economic	Median household Income	\$41,819	\$104,482	\$88,854	\$27,454	\$24,374
stability	% of unemployment	13.1	2.3	5.4	26.4	20.7
	% of families in poverty	28.8	4.9	17.0	45.2	50.3
	% of land covered by food desert	12.5	0.0	0.0	40.0	59.4
Neighborhood and built	Average annual lead paint violation rate (per 10,000 households per year)	9.8	1.5	0.9	81.6	34.1
environment	Vacant building density (# of vacant buildings per 10,000 housing units)	562.4	5.4	36.2	1,794.4	2,560.4
Health care access and	% of children under 18 years with no health care insurance	4.4	0.5	3.8	6.0	1.5
quality	% of adults 18 years or older with no health care insurance	11.7	3.2	4.9	15.5	15.5
Health	Life expectancy at birth (years)	73.6	83.9	79.2	68.9	70.0
outcomes	Infant mortality rate per 1,000 live births (2011-2015)	10.4	3.6	3.3	12.1	10.1
	Age-adjusted all-cause mortality rate (deaths per 10,000 residents)	99.5	54.5	75.9	130.0	116.0
	Age-adjusted mortality rate (deaths per 100,000)					
	Heart disease	24.4	13.6	25.7	41.2	31.2
	Cancer (all kinds)	21.2	17.6	27.4	44.7	25.2
	Stroke	5.0	5.1	4.7	12.7	5.1
	Diabetes	3.0	2.3	2.8	4.7	5.7
	Homicide	3.3	0.0	1.0	6.4	7.3

Several milestones have occurred over that period that are responsible for advancing the CHW model. In 1998, Rosenthal and colleagues published the first study of CHWs, which was instrumental in explicating their range of activities and dimensions of their professional identity.⁴⁵ Sponsored by the Annie E. Casey Foundation, Rosenthal and colleagues' appraisal of the workforce served as the foundation for the current delineation of CHWs' roles/scope of practice and skills/ competencies, recently enumerated by members of the Community Health Worker Core Consensus (C3) Project and encapsulated in Tables 2 and 3, respectively.46 Another notable moment for the CHW profession took place in 2006, when members of the American Public Health Association's Community Health Worker Special Primary Interest Group (CHW SPIG) developed what has become the prevailing definition of CHWs used across the country.47

Perhaps the most transformative milestone for the workforce occurred in 2010 with the passage of the landmark Patient Protection and Affordable Care Act (ACA), which consisted of several policies centered on reducing hospital readmissions, and their attendant costs, through a combination of financial incentives and penalties. Payment reform was geared toward achieving a common goal across all of the ACA's initiatives: to improve care coordination across the continuum of care, through innovative linkages between community-based organizations and hospitals; comprehensive, holistic care; and novel payment models that aligned penalties

and reimbursement with reductions in allcause readmissions.⁴⁸ By encouraging the development, implementation, and evaluation of interventions featuring the inclusion of CHWs into interdisciplinary home-based and community-based health care teams for chronic disease management, and programs geared toward reducing hospital readmissions and improving care transitions, the ACA positioned CHWs as critical members of the health care workforce. 49,50 It also authorized the issuance of grants to organizations proposing to use CHWs to improve health in underserved areas, thereby reinforcing the utility of CHWs for activities such as health insurance enrollment, health education and outreach. and referrals to health care and communitybased resources.51,52,53

Furthermore, statutes that governed the implementation of ACA requirements led to an important change in stipulations established by the Centers for Medicaid and Medicare Services (CMS) regarding preventive services. Preventive services were defined as those recommended by physicians or other licensed practitioners; however, as of January 1, 2014, CMS amended its regulation such that preventive services could be rendered by nonlicensed providers, including CHWs. This move created the opportunity for CHW services to be billable (through the auspices of clinicians' referrals), which is central to the diversification of funding streams to support CHW activities and programs through Medicaid reimbursement.

Table 2: Summary of Community Health Workers' Roles/Scope of Practice by the Community Health Worker Core Consensus Project, Expanded from the 1997 Community Health Worker Report⁵⁴

ROLE	SUB-ROLES
Mediating cultural differences among	 Educating individuals and communities about how to use health and social service systems (including understanding how systems operate)
individuals,	Educating systems about community perspectives and cultural norms (including supporting implementation)
communities, and	of Culturally and Linguistically Appropriate Services [CLAS] standards)
health and social service systems	Building health literacy and cross-cultural communication
Providing culturally	Conducting health promotion and disease prevention education in a manner that matches linguistic
appropriate health	and cultural needs of participants or community
education and	Providing necessary information to understand and prevent diseases, and to help people manage health
information	conditions (including chronic disease)
Care coordination,	Participating in care coordination and/or case management
care management,	Making referrals and providing follow-up
and system	Facilitating transportation to services and helping address barriers to services
navigation	Documenting and tracking individual- and population-level data
	Informing people and systems about community assets and challenges
Providing coaching	Providing individual support and coaching
and social support	Motivating and encouraging people to obtain care and other services
	Supporting self-management of disease prevention and management of health conditions
	(including chronic disease)
	Planning and/or leading support groups
Advocating for	Advocating for the needs and perspectives of communities
individuals and	Connecting to resources and advocating for basic needs (e.g., food and housing)
communities	Conducting policy advocacy
Duilding individual	. Duilding individual conneits
Building individual and community	Building individual capacity Building community capacity
capacity	Training and building individual capacity with peers and among CHW groups
	• Hairling and building individual capacity with peers and among Criw groups
Providing direct	Providing basic screening tests (e.g., height, weight, blood pressure)
service	Providing basic services (e.g., first aid, diabetic foot checks)
	Meeting basic needs (e.g., direct provision of food and other resources)
Implementing	Participating in design, implementation, and interpretation of individual-level assessments
individual and	(e.g., home environmental assessment)
community	Participating in design, implementation, and interpretation of community-level assessments
assessments	(e.g., windshield survey of community assets and challenges, community asset mapping)
Conducting	Case-finding/recruitment of individuals, families, and community groups to services and systems
outreach	Follow-up on health and social service encounters with individuals, families, and community groups
	Home visiting to provide education, assessment, and social support
	Presenting at local agencies and community events
Participating in evaluation and	Engaging in evaluating CHW services and programs
research	 Identifying and engaging community members as research partners, including community consent processes
	Participating in evaluation and research:
	Identification of priority issues and evaluation/research questions
	Development of evaluation/research design and methods
	Data collection and interpretation
	Sharing results and findings
	Engaging stakeholders to take action on findings

Table 3: Summary of Community Health Workers' Skills Codified by the Community Health Worker Core Consensus Project, Expanded from the 1997 Community Health Worker Report⁵⁵

SKILL	SUB-SKILLS
Communication skills	Ability to use language confidently
	Ability to use language in ways that engage and motivate
	Ability to communicate using plain and clear language
	Ability to communicate with empathy
	Ability to listen actively
	 Ability to prepare written communication including electronic communication (e.g., email, telecommunication device for the deaf)
	Ability to document work
	Ability to communicate with the community served (may not be fluent in language of all communities served)
Interpersonal and relationship-building skills	Ability to provide coaching and social support
relationship-bullung skins	Ability to conduct self-management coaching
	Ability to use interviewing techniques (e.g., motivational interviewing)
	Ability to work as a team member
	Ability to manage conflict
	Ability to practice cultural humility
Service coordination and	Ability to coordinate care (including identifying and accessing resources and overcoming barriers)
navigation skills	Ability to make appropriate referrals
	Ability to facilitate development of an individual and/or group action plan and goal attainment
	Ability to coordinate CHW activities with clinical and other community services
	Ability to follow-up and track care and referral outcomes
Capacity-building skills	Providing individual support and coaching
	Motivating and encouraging people to obtain care and other services
	 Supporting self-management of disease prevention and management of health conditions (including chronic disease)
	Planning and/or leading support groups
Advocacy skills	Ability to contribute to policy development
	Ability to advocate for policy change
	Ability to speak up for individuals and communities
Education and	Ability to use empowering and learner-centered teaching strategies
facilitation skills	Ability to use a range of appropriate and effective educational techniques
	Ability to facilitate group discussions and decision-making
	Ability to plan and conduct classes and presentations for a variety of groups
	Ability to seek out appropriate information and respond to questions about pertinent topics
	Ability to find and share requested information
	Ability to collaborate with other educators
	Ability to collect and use information from and with community members
Individual and community	Ability to participate in individual assessment through observation and active inquiry
assessment skills	Ability to participate in community assessment through observation and active inquiry

Table 3: Summary of Community Health Workers' Skills Codified by the Community Health Worker Core Consensus Project, Expanded from the 1997 Community Health Worker Report (continued)

SKILL	SUB-SKILLS		
Outreach skills	Ability to conduct case-finding, recruitment, and follow-up		
	Ability to prepare and disseminate materials		
	Ability to build and maintain a current resource inventory		
Professional skills and conduct	Ability to set goals and to develop and follow a work plan Ability to balance priorities and to manage time		
	Ability to balance priorities and to manage time Ability to apply critical thinking and problem solving techniques		
	Ability to use pertinent technology		
	Ability to pursue continuing education and life-long learning opportunities		
	Ability to maximize personal safety while working in community and/or clinical settings		
	Ability to observe ethical and legal standards (e.g., CHW Code of Ethics, Americans with Disabilities Act [ADA], Health Insurance Portability and Accountability Act [HIPAA])		
	Ability to identify situations calling for mandatory reporting and carry out mandatory reporting requirements		
	Ability to participate in professional development of peer CHWs and in networking among CHW groups		
	Ability to set boundaries and practice self-care		
Evaluation and research skills	Ability to identify important concerns and conduct evaluation and research to better understand root causes		
	Ability to apply the evidence-based practices of Community Based Participatory Research (CBPR) and Participatory Action Research (PAR)		
	Ability to participate in evaluation and research processes including:		
	- Identifying priority issues and evaluation/research questions		
	Developing evaluation/research design and methods		
	Data collection and interpretation		
	Sharing results and findings		
	– Engaging stakeholders to take action on findings		
Knowledge base	Knowledge about social determinants of health and related disparities		
	Knowledge about pertinent health issues		
	Knowledge about healthy lifestyles and self-care		
	Knowledge about mental/behavioral health issues and their connection to physical health		
	Knowledge about health behavior theories		
	Knowledge of basic public health principles		
	Knowledge about the community served		
	Knowledge about United States health and social service systems		

National Funding Environment for CHWs

There are four prevailing financing models to support CHW programs: 1) grants from charitable foundations and government agencies; 2) reimbursement through Medicaid; 3) general funds from federal, state, or local government; and 4) employment by private organizations. 56,57,58,59 The primary characteristics of each funding model are summarized below. Funding provided by charitable foundations and government agencies has long been the most prevalent

means of financing CHWs.⁶⁰ Medicaid reimbursement is currently the least common.

Figure 5, developed by Carl Rush, principal of Community Resources, LLC, depicts the pathways for CHW financing and summarizes the models of care delivery across various settings, the roles that CHWs can fulfill within them, the range of payment mechanisms to support these models, and the potential options for third-party payers.⁶¹ The diagram underscores the reality that a constellation of diverse, coordinated funding arrangements is necessary to assure the financial viability of

Figure 4: Primary Sources of Funding to Support Community Health Workers

SOURCES	DESCRIPTION		
Grants from charitable foundations and government agencies	 Most common arrangement within US Maintains strict requirements to receive ongoing funding Grant sources include National Institutes of Health (NIH), Health Resources and Services Administration (HRSA), and Temporary Assistance for Needy Families (TANF) State and locally administered programs typically disease-specific Philanthropic funds allocated to CHW employers such as community-based organizations and community clinics to support CHWs' salaries and operating costs associated with program administration 		
Medicaid reimbursement	 State Plan Amendments (SPAs) for reimbursing preventive services or broader Medicaid reimbursement, which allows for CHWs to be reimbursed for preventive services that are recommended by physicians or licensed practitioners; or a set of predefined services Defined reimbursement through Section 1115 Waivers, which allows states to pay for the use of CHWs in models focusing on specific Medicaid populations Managed care contracts, whereby states can require managed care organizations to directly hire CHWs or contract with groups that hire them as part of a care team; costs may be covered through flat fee or per-member, permonth payments 		
General funds from federal, state, or local government	 Government general funds with dedicated line items in budgets to support programs offering CHW services, covering CHW salaries and program operating costs Supported by taxes 		
Employment via private organizations	 Consists of mainstream health care providers (i.e., hospitals and health systems), managed care organizations, insurance companies, and employers May directly hire CHWs or contract for CHW services For mainstream health care providers, hiring primarily driven by cost savings/cost avoidance approach (e.g., saving money by reducing ED utilization and/or readmissions) 		

Figure 5: Sustainable Financing of CHW Activities: Three Broad Pathways⁶²

	A Conventional Health Care	B Population/Community- based Public Health	C Patient-centered Care Systems (Emerging hybrid structures)
1 Promising Program Models	 Emergency room diversion "Hot-spotters" (high-cost users) Prenatal/perinatal coaching Primary care-based chronic disease management Care transitions Home/community-based long-term care 	 Specific condition- focused initiatives Community development approach (social determinants) 	 Patient Centered Medical Homes Accountable Care Organizations Health Homes
2 Specific CHW Roles in these Models	 Care coordination Self-management support for chronic conditions Referral and assistance with non-medical needs and barriers Medication management support Patient/family advocacy Support and extension of health education Patient navigation 	 Basic outreach and education Community advocacy/ organizing 	Combination of health care and population-based
3 Payment Mechanisms for these Models	 Fee-for-service Managed care organizations (admin/ service dollars, duals) Medicaid 1115 waivers Internal financing Prospective payment (FQHCs) 	 Medicaid waivers Block grants Prevention trust fund Pooled funds from third-party healthcare payers 	 Bundled/global/ prospective payment Supplemental capitation payment for specific services
4 Options for Third-party Payers	 CHWs directly employed be Health care provider content CBO contracts to employed CHWs as independent core 	racts/add-ons to hire CHWs CHWs	

CHW-delivered interventions.^{63,64} Indeed, Kiefer and colleagues note the drawbacks associated with relying on single sources of financing for CHW interventions, cautioning that doing so may constrain the populations served (based on a program's parameters) and limit CHWs' activities (for example, focusing on locating patients and referring them to resources, rather than the work that is at the crux of the CHW model: cultivating trusting relationships that boost individual and community empowerment, which may ultimately lower the cost of care over time).⁶⁵

Fee-for-service (FFS) arrangements, the dominant health care payment structures in the United States, have some potential drawbacks with respect to covering CHW services. States must have billing codes for CHWs in order for them to be reimbursed for their services. Also, FFS reimbursement tends to reward volume over value and does not account for the costs—such as travel and time needed to build trust, cultivate relationships, and provide social support—associated with the very activities that are central to the CHW role. 66,67 In contrast, value-based payment systems, which incentivize the delivery of higher-quality care for individual patients and broader patient populations at a lower cost, offer higher payments to providers who are a part of value-based structures (such as Accountable Care Organizations or ACOs) than to those who use FFS models.⁶⁸ ACO structures funnel payments through team-based care, rather than individual providers, or select members of a multidisciplinary team. For chronic disease management, which is best supported by multidisciplinary teams, CHW financing through ACOs is a possibility through CHWs' inclusion into care teams.

Approaches to State-level Medicaid Reimbursement

Although solely relying on one financing mechanism to support CHWs is not advisable, the fact remains that any attempt to sustain the CHW workforce, nationally and within

states, cannot occur without engaging the nation's largest public insurer: Medicaid/ Medicare. There are five approaches that states can use to pursue Medicare reimbursement of CHW services:⁶⁹

- State Plan Amendments (SPAs) for reimbursing preventive services;
- **2.** Defined reimbursement through Section 1115 Waivers;
- **3.** State legislation and SPAs for broader Medicaid reimbursement;
- **4.** Reimbursement through managed care contracts; and
- **5.** Funding through health system transformation efforts.

Medicaid reimbursement for CHW services is, at present, the exception rather than the rule. It is possible that this is due to the fairly recent efforts to explicate CHWs' scope of work and establish credentialing procedures. Notably, early 2021 brought about increased statelevel efforts to enact legislation supporting Medicaid reimbursement of CHW services. The governor of Illinois signed the Illinois Health Care and Human Service Reform Act, which aims to address inequities in health care delivery in the state;⁷⁰ the broader act includes the "Community Health Worker Certification and Reimbursement Act." In addition to establishing parameters for training and certifying CHWs, the act makes provisions for implementing Medicaid reimbursement of CHW-delivered services, including care coordination and diagnosis-specific supports, through the state's medical assistance program.^{71,72} Similarly, Nevada amended existing legislation endorsing the director of the state's Department of Health and Human Services to create and submit a State Plan Amendment to the Centers for Medicare and Medicaid Services, in order to cover services provided by a CHW operating under the supervision of a health care provider.^{73,74}

Below, we highlight the Medicaid reimbursement approaches employed by Indiana, South Dakota, Minnesota, and New Mexico. Indiana and South Dakota reimburse select CHW services through the SPA mechanism for reimbursing preventive services. Minnesota's reimbursement occurs through state legislation passed in 2007, via a SPA for broader Medicaid reimbursement. New Mexico uses the 1115 Waiver for defined reimbursement.

Indiana

In November 2018, Indiana became one of the first states to successfully acquire CHW reimbursement through the State Plan Amendment mechanism. Indiana's Medicaid plan will reimburse CHW-delivered interventions for services rendered by those who fall into the approved CHW definition, possess defined competencies, and meet supervision and experience requirements. CHWs must work for an organization that accepts patients using Indiana Medicaid. They are required to be certified and must provide their services in person (two hours/ day, 12 hours/month). Further, CHWs must deliver the service under the supervision of a physician or licensed clinician (e.g., physician assistants or chiropractors). The range of activities eligible for reimbursement is limited to patient education for managing health, serving as a translator (either due to language or socioeconomic status), health promotion of chronic diseases, and direct preventive services (i.e., medication management).^{75,76}

South Dakota

South Dakota's state Medicaid program introduced CHW service reimbursement in April 2019 through a State Plan Amendment. CHW services eligible for coverage are limited to self-management education and training for those with mental health conditions, substance abuse disorder, cancer, diabetes, and heart disease. Covered services are also

provided for those whose barriers to care hinder their capacity to access health care services (such as geographical distance) or to adhere to recommended treatments or therapeutic regimens. Reimbursement is contingent on CHW certification (specifically, that a CHW has completed the Indian Health Service Community Health Representative basic training, or a CHW training program approved by the South Dakota Board of Technical Education, the South Dakota Board of Regents, or a CHW training program approved by the state) and face-to-face delivery of services, which can be done via telemedicine, and must be under the order and supervision of a physician or licensed practitioner. CHW services can also be provided in group settings, limited to eight participants.77,78

Minnesota

Minnesota has one of the longest-running sustainable financing structures for CHWs in the country, having authorized Medicaid reimbursement through state legislation and State Plan Amendments passed in 2007. Minnesota's Medicaid program covers faceto-face CHW visits to individuals and groups. In order for CHW services to be reimbursed. the CHW must be certified by an accredited postsecondary school offering the competencybased CHW curriculum and work under the supervision of a physician or licensed clinician. Notably, the reimbursement process has been hampered by a cumbersome enrollment and billing experience, leading some to cover CHWs through their operating budgets. CHW services are designated as diagnosis-related medical interventions, not a social service, which reveals a divergence between the full range of services CHWs are capable of providing and the actual set of activities deemed eligible for reimbursement.79,80,81

New Mexico

In 2014, New Mexico implemented reimbursement of CHWs' services through

managed care contracts, mandating that all Medicaid managed care organizations (MCOs) directly hire or contract with CHWs. This was expanded through another state mandate passed in 2019, which authorized the provision of CHW services to at least 3% of Medicaid beneficiaries (which amounts to 20,000 members). CHWs are employed to perform several care coordination activities, including interpretation and translation, culturally competent health education, informal counseling on health behaviors, and linking enrollees with health care services and community resources.^{82,83}

Medicaid Reimbursement and Certification

It is important to note that the Medicaid reimbursement regulations illuminate the link that several states have established between reimbursement and CHW certification. CHW certification has been positioned as a vehicle to increase the diffusion of the use of community health workers in health care systems.84,85,86,87 Indeed, all 14 of the key informants interviewed for this report support linking reimbursement to certification. However, there are significant gaps in our understanding of the impact of certification on patients' outcomes, the quality of services provided by CHWs, and key facets of workforce development. These gaps are largely due to the fact that CHW certification is in its infancy.88 One potential drawback of certification is the possibility of creating hierarchies within the workforce, such that those who are not certified are less likely to be hired, and more likely to experience job instability, than those who are certified.89,90 On the other hand, certification may standardize training, support consistency in skill acquisition around CHWs' scope of work, and stimulate funding streams for CHW programs. 91,92,93,94

Summary of Key Takeaways from Other States and Potential Implications for Baltimore City and State Community Health Workers

There are important insights to glean from efforts that other states have undertaken to cultivate the infrastructure necessary for strengthening and sustaining their local CHW workforce and facilitate Medicaid reimbursement arrangements. Each state that has successfully achieved reimbursement for CHW services has had a clear articulation of the CHW identity (developed by CHWs themselves), a well-defined scope of practice, expectations for demonstrated capacity with core competencies, an established training and/ or certification process, and multistakeholder engagement between CHWs, employers, and payers. The latter is key, in that sustained engagement also contributed to a shared understanding of the relationship between certification and reimbursement.

MARYLAND'S HEALTH CARE ENVIRONMENT AND EFFORTS TO STANDARDIZE THE CHW WORKFORCE

Currently, the majority of CHWs working in Maryland are supported through grantfunded projects. The state does not yet offer reimbursement for CHW services. The 14 key informants interviewed for this report were unequivocal in their support for its necessity in assuring sustainable financing for CHWs, and with good reason: Two converging forces in the state have created a unique environment supportive of sustaining the CHW workforce. The first is its innovative health care transformation initiatives, based on an all-payer hospital rate regulation system that allows for a reimagining of Maryland's health care delivery system to a population healthbased system underpinned by addressing SDOH. The second is the range of activities

undertaken to develop and standardize the workforce, efforts that have largely been led by CHWs and their champions, and have produced legislation that systematizes key facets of CHWs' workforce development.

Health Care Infrastructure and Transformation Initiatives Favorable to Supporting the CHW Model

The state's health care delivery infrastructure is distinguished by an all-payer model instituted through legislation passed in the 1970s. A key feature of this legislation was the establishment of the Health Services Cost Review Commission (HSCRC) in 1971, in response to several compelling factors. Chief among them were rising hospital costs per admission in Maryland compared to other states, financial instability for hospitals incurring financial losses from caring for uninsured patients, and the denial of health care coverage for patients who were uninsured or underinsured.95 The HSCRC was granted the authority to set rates prospectively each year such that all insurers (Medicare/Medicaid, commercial insurance, and self-pay) pay similar prices for services rendered at acute hospitals (hence, the "all-payer" designation ascribed to the state). 96,97 While the HSCRC operates in close collaboration with the state's leadership and several other stakeholders, its governance is at arm's length from the state, with a group of commissioners appointed by the governor and confirmed by the state Senate. This serves to reduce the potential for undue influence from the state's governor, members of their administration, and other state legislators.98

Despite the all-payer rate regulation system organized and administered by the HSCRC, health care costs continued to rise more rapidly in Maryland than in other states.⁹⁹ This prompted the expansion of a pilot program that applied global budgets for rural hospitals, to a statewide adoption of a novel global budget revenue (GBR) structure, which

occurred in 2014.¹⁰⁰ Essentially, a global budget is a value-based payment program that aims to provide fixed, predictable revenue.^{101,102,103} Whereas the FFS model incentivizes increasing patient volume to optimize revenue, the incentives in a GBR support achieving a fixed revenue target independent of patient volume or services: If revenue exceeds the annual budget more than 0.5%, the surplus is deducted from the hospital's budget the following year. Similarly, if the hospital collects less than 0.5% of the target revenue, the global budget is adjusted down in subsequent years.¹⁰⁴ Hospitals can adjust unit prices to meet the negotiated budgets.

When first established, the initial global budget is based on health care facilities' historical expenditures, which include substantial costs arising from avoidable utilization. This means that a GBR structure rewards population health interventions that thwart avoidable admissions and readmissions. Because social determinants of health are an underlying cause of avoidable admissions and readmissions, the GBR structure creates an incentive to consider population-based and upstream interventions. ¹⁰⁵

The all-payer annual global budget model operated under an agreement with CMS that exempted Maryland from Medicare's Inpatient Prospective Payment System and Outpatient Prospective Payment System. Through this agreement, Maryland was expected to limit per capita total hospital cost growth for all payers, including Medicare, and generate \$330 million in Medicare savings. By the time the initial GBR demonstration program ended in December 2018, the state generated \$916 million in savings, and its hospitals successfully moved 100% of their revenue across all payers into population-based payments, improved the quality of care delivery, and shepherded a reduction in admissions for ambulatory care sensitive conditions and readmissions following discharge.¹⁰⁶

During the first GBR model, state commitments focused on hospital costs, with a secondary effort to limit all health care costs. In January 2019. Maryland entered into a new agreement with CMS for a "total cost of care model" (TCOC) that made commitments for all health care costs. Sapra and colleagues note that implementation of the TCOC model constitutes the first time that CMS will hold a state accountable for the total cost of care incurred by resident fee-for-service beneficiaries, and it will support these efforts through significant financial incentives to foster improvements in population health. The goal of the new model is to further incentivize care coordination across the continuum of care not only between primary care providers and specialists, but also between hospitals and nonhospital facilities.¹⁰⁷ The adoption of a TCOC model represents an expansion of value-based payment models and requires changes in care delivery and modernization of the state's health plan. It also presents an opportunity to foster stronger linkages between health care organizations and institutions whose services are geared toward tackling behavioral health conditions, substance use disorder, and social determinants of health.

In fact, one of the most promising care redesign initiatives within the TCOC model is the Maryland Primary Care Program (MDPCP), which aims to bring care coordination and support to approximately 500,000 Medicare beneficiaries and 4,000 physicians. 108 The MDPCP began on January 1, 2019 and is slated to end on December 31, 2026. It envisions the creation of a new type of entity, a Care Transformation Organization (CTO). Health plans, ACOs, managed service organizations, clinically integrated networks, hospitals, and other practice support organizations can apply to be a CTO, defined as an entity that hires and manages an interdisciplinary care management team providing an array of care coordination services to Medicare beneficiaries.¹⁰⁹ CTOs are conceived as including CHWs to provide referrals and linkages to social services.

This new model broadens the opportunity to develop sustainable funding streams for CHWs in Maryland. It also paves the way to consider the possibilities of using value-based payment structures to support Medicaid reimbursement of CHWs' services. Conceivably, the underlying structure of the global budget invites the incorporation of CHWs into health care settings. For instance, since CHW-delivered interventions target the social determinants of health that contribute to unnecessary health care utilization and readmissions among "health care frequent flyers," 110 money saved from reduced utilization, and other internal costs, can be reinvested into employing CHWs.

State Legislation and Regulations Supporting the CHW Workforce

In 2013, the number of CHWs working in Maryland was estimated to be 1430,111 and the present figure is likely higher in view of recent employment-based initiatives geared toward hiring individuals for jobs as CHWs. CHWs are based in a variety of geographic locations throughout the state and work primarily in community-based organizations, inpatient hospital settings, and outpatient primary care teams. Although there is a long history of CHW utilization throughout the state, in recent years, state legislators, in concert with CHWs and their champions, have made important strides to support the incorporation of CHWs into public health and health care delivery systems. This has been achieved through a series of bills that have progressively enhanced CHWs' professional development.

House Bill 856/Senate Bill 592 – Establishment of a Workgroup on Workforce Development for Community Health Workers (2014)

Formal legislation to support the broader workforce was introduced in 2014 through House Bill 856/Senate Bill 592. This bill mandated the creation of a multistakeholder group that would meet to develop

recommendations regarding CHWs' scope of work; training curricular content; core competencies; credentialing criteria and processes; oversight and supervision; career trajectories, including the possibility of a tiered approach to differentiate between CHWs (CHW I and CHW II); and reimbursement strategies. 112 At the time, members of the workgroup identified lack of standardization as the main obstacle hindering CHWs' progress as a profession. Standardization was conceived as comprising several interrelated components; among them were 1) defining who CHWs are; 2) articulating what CHWs do (scope of practice); 3) establishing which areas CHWs should have mastery of (core competencies); and 4) determining the appropriate training and certification processes. Workgroup members were also tasked with proffering guidance on reimbursement and strategies for ongoing support for CHWs across the state.

To this end, members of this group met eight times over a seven-month period (September 2014 through March 2015), drawing from input received from local CHWs; reviews of national training and certification models; and their own experiences working as, employing, training, and/or supervising CHWs, or implementing and evaluating CHW programs. Of note, when this workgroup convened, it deemed recommendations concerning reimbursement to be premature, its importance to the CHW workforce notwithstanding. Rather, it was thought that shoring up the CHW workforce would assert its value and facilitate future advocacy efforts to create and implement reimbursement policies. The workgroup also proposed that CHW stakeholders meet and develop guidelines to support reimbursement from public and private payers.113

The workgroup's convenings initiated statewide efforts to delineate and uphold CHWs' professional identity. However, regulatory measures have been an essential next step in cultivating the requisite infrastructure to support the CHW workforce.

Annotated Code of Maryland, Health-General Article, Title 13, Subtitle 37 – Establishment of the State Community Health Worker Advisory Committee, Certification Processes, and the Community Health Worker Fund (2018)

One of the main recommendations from the state's workgroup on workforce development for CHWs was to create an oversight body that would govern Maryland's CHW workforce, especially the complement of activities associated with the certification process. This recommendation came to fruition in May 2018, through the passing of Senate Bill 163 (Chapter 441). It established the State Community Health Worker Advisory Committee and affirmed its preeminent role in advising the Maryland Department of Health on instituting criteria for certifying CHWs and accrediting CHW certification training programs.

In accordance with the workgroup's recommendations, half of the committee members are required by law to be CHWs. This is critical to ensuring that CHWs play a leadership role in shaping the progression of their profession. The remaining half are CHW stakeholders: the secretary of health or their designee; a registered nurse and a licensed social worker, both of whom must have experience in community health; and a representative from a CHW training organization, the Maryland Public Health Association, a community-based employer of CHWs, the Maryland Association of County Health Officers, the Maryland Hospital Association, and the Community Behavioral Health Association of Maryland. The committee must also include a member of the public who is familiar with CHWs and the services they provide. Each committee member is required to be a resident of the state and serve a fouryear term (that is, unless they are removed from their appointment due to misconduct, incompetence, or negligence). The committee meets at least two times a year. The Maryland

Department of Health is mandated to provide staff support and technical assistance to the Advisory Committee, indicating institutional commitment to buttressing the infrastructure needed to support the CHW workforce within the state.

Code of Maryland Regulations (COMAR) 10.68.01 and 10.68.02 (2019)

Senate Bill 163 (Chapter 441) authorized the CHW Advisory Committee to advise the Maryland Health Department on the certification process and established the parameters undergirding the certification process at large. These were codified through regulations that went into effect on December 30, 2019. Under Subtitle 68, Community Health Workers, the state health department issued administrative regulations establishing the requirements to certify CHWs (COMAR 10.68.01)¹¹⁶ and accredit CHW certification programs (COMAR 10.68.02).¹¹⁷ COMAR 10.68.01 comprises administrative

regulations governing application procedures and certification requirements, as well as the procedures associated with reviewing completed applications and the point at which one is designated a certified CHW. In addition, COMAR 10.68.01 delineates certificate expiration and renewal processes and the parameters around suspension or revocation of a certificate. The criteria for certification are:

- 18 years of age or older; AND
- **Either:** documentation confirming the successful completion of a state-accredited CHW certification training program, **OR** exemption from training program requirements due to experience as a CHW, which requires proof of a minimum of 2,000 hours of CHW paid or volunteer experience five years prior to October 1, 2018 or the application date; submission of a minimum of two letters of validation from a current or former

Maryland's CHW Core Competencies

- 1. Advocacy and community capacity building skills
- 2. Effective oral and written communications skills
- **3.** Cultural competency
- 4. Understanding of ethics and confidentiality issues
- **5.** Knowledge of local resources and system navigation
- **6.** Care coordination support skills
- 7. Teaching skills to promote healthy behavior change
- 8. Outreach methods and strategies
- 9. Understanding of public health concepts and health literacy

"I think we are the most needed, in some cases, to be that bridge, to assist with the language barriers or understanding, to assist with making sure that the medication is taken properly, to assist with, you know, all the other things. I always talk about how the doctors and others give CHWs all these leaves off of the tree. 'They're not taking their medicine and nonadherent. They don't come to their appointments, they don't do this. They don't do that.' And then CHWs take all the leaves and we go down to the root of the tree. We find out what is the root of the issue. It's not that they don't want to take the medicine. That medicine needs to be in a refrigerator. And they don't have any BGE...These things aren't necessarily taken into account... but we can go places and do things that no one else can do."

– Key Informant, CHW

CHW employer, supervisor, or agency representative that recommended the applicant for certification, who can validate that the CHW has the requisite minimum 2,000 hours of experience; and validated proficiency in core competencies.

COMAR 10.68.02 establishes the accreditation process for CHW certification training programs, namely, the training program requirements, the application submission procedures and review processes, the composition of the review committee, and the actions of the review committee upon determination of whether or not a training program application fulfills the requirements for accreditation. For a CHW certification

training program to be accredited by the state, it must provide a minimum of 100 hours of instruction, verify successful completion of an additional 40-hour practicum by a student, ensure that curricular content incorporates the nine core competencies expected of a CHW working in Maryland, and include an objective knowledge assessment.

CHW WORKFORCE IN BALTIMORE CITY: UNIQUE PROGRAMS AND CONTEXTUAL ISSUES

Baltimore City has long been the site of innovative CHW interventions. The city's health department, local academic medical centers, health systems, federally qualified

health centers, and community-based organizations alike have developed, implemented, and evaluated using CHWs to support diabetes self-management, 118 blood pressure management, 119 and communitycentered health education and outreach.¹²⁰ Demonstration projects have included CHWs as a part of health care teams in order to test their utility in facilitating continuity of care across the care continuum.¹²¹ Furthermore, CHWs were central to successful communitybased efforts to target health inequities in the Health Enterprise Zones, a statewide pilot program targeting economically disadvantaged qeographic areas—including, notably, West Baltimore—that ran from 2012-2016. This initiative aimed to reduce racial/ethnic and geographic health disparities; improve access to care; and reduce health care costs, hospital admissions, and readmissions. 122,123

Importantly, the state recently passed Senate Bill 172/House Bill 463, the Maryland Health Equity Resource Act, to establish a Pathways to Health Equity Program, which will support the development and implementation of a permanent Health Equity Resource Community Program. 124,125 The Health Equity Resource Community Program, modeled after the Health Enterprise Zone Initiative, will require the Community Health Resources Commission to designate specific areas in the state as Health Equity Resource Communities, featuring the same intervention components that made the Health Enterprise Zone Initiative effective, namely, the inclusion of CHWs. The state will channel resources to Health Equity Resource Communities in order to reduce racial/ethnic and geographic health inequities, through the provision of grants, tax incentives, and health care provider loan repayment assistance, and will support the areas previously delineated as Health Enterprise Zones. 126

Common CHW Services in Baltimore City

According to our key informants, the tasks assumed by CHWs in Baltimore City fall well

within the typical scope of practice. The range of services provided are responsive to the circumstances affecting residents' health and well-being. CHWs support patients and families by connecting reentry populations to resources; providing substance abuse treatment referrals; and assisting with food insecurity, general literacy, housing issues, transportation, and state-issued identification. They also serve as a liaison between the community and health care system, and accompany patients to their visits with providers. Three of the key informants expressed that the city's resources are not easily accessible for those encumbered with myriad health problems and/or social issues. Frequently cited by key informants as critical to the success of building enduring connections with those in need of help were CHWs' empathy, as well as their familiarity with navigating the same issues they endeavored to assist patients and families with.

Perceptions of Certification and Sustainable Funding for Baltimore's CHWs

Our key informants indicated that, while some CHWs are employed by hospitals, health care systems, payers, and clinic practices, the majority of CHWs are funded through grants. Medicaid reimbursement was regarded by most of the key informants as a vehicle for supporting long-term, sustainable financing for CHWs, with the caveat that it would not address unstable funding for those employed by community-based organizations or nonhealth care entities. There was broad support for certification as a vehicle for strengthening the workforce by establishing a baseline understanding of who CHWs are and what they do, amplifying their expertise, and confirming appropriate expectations of their capacity within health care teams. In addition, several key informants asserted that not only should certification be a part of the criteria for Medicaid reimbursement, but also, certified CHWs should earn more money than those who are not certified.

Novel CHW Initiatives in Baltimore City

As previously mentioned, CHWs have been employed by local entities for several years. However, there are two novel programs currently underway whose design and execution stand to significantly expand the CHW workforce in the city: the Baltimore Population Health Workforce Collaborative (BPHWC), 127,128 and the Baltimore Health Corps (BHC). 129 Whereas the BPHWC aims to create permanent employed positions for those

seeking to be CHWs as well as peer recovery specialists and home-based certified nursing assistants, BHC is a transitional jobs program that will go through September 2021. Once CHWs' tenure in the BHC program ends, they will require assistance getting connected to other job opportunities.

The key components of these initiatives are outlined below.

Baltimore Population Health Workforce Collaborative

- Funded by the HSCRC from hospital rates and 50% match from partnering hospitals
- Initiated in response to civil unrest following death of Freddie Gray, to address root causes of systemic poverty by targeting unemployment and underemployment
- Aims to hire approximately 200
 residents from highest poverty
 areas surrounding the nine partnering
 hospitals in entry-level positions, as
 CHWs, peer recovery specialists, and
 CNAs/GNAs
- Three-year initial grant term that began in 2017; was renewed for a second consecutive three-year term
- Has three core objectives:

 health education and self-management skills promotion;
 provision of care management and care coordination services for high utilizers of hospital services due to SDOH; and 3) population health improvement activities

Baltimore Health Corps

- Funded through a combination of federal and philanthropic sources
- Initiated in response to the economic and public health upheaval caused by the COVID-19 pandemic
- Aims to hire 300+ unemployed and underemployed residents to serve as contact tracers (240) and care coordinators (60)
- Pilot grant that began in 2020; tenure as CHW is for eight to 12 months
- Has three core objectives: 1) equitable job creation and skills training; 2) controlling the spread of COVID-19; and 3) serving the social needs of Baltimore's most vulnerable

Baltimore Population Health Workforce Collaborative

The Baltimore Population Health Workforce Collaborative (BPHWC) is funded by the Population Health Workforce Support for Disadvantaged Areas (PHWSDA) Program, which is administered by the HSCRC. The HSCRC authorized up to \$10 million in hospital rate increases for hospitals that committed to train and hire workers from geographic areas characterized by high economic disparities and unemployment.¹³⁰ Given that the absence of reimbursement arrangements for CHW services prevents some hospitals from hiring CHWs, this program provides an opportunity to support CHWs' integration into the health care delivery system by incentivizing their use to address patients' SDOH. The BPHWC is a collaboration between a consortium of four major health systems (Johns Hopkins Medical Institutions, Medstar, University of Maryland, and Sinai Hospital) comprising nine hospitals in the Baltimore Metropolitan Area, and community-based organizations located throughout East and West Baltimore. 131,132

Overarching workforce development coordination is spearheaded by the Baltimore Alliance for Careers in Healthcare (BACH). BACH collaborates with Turnaround Tuesday. an initiative of Baltimoreans United in Leadership Development (BUILD), which recruits, screens, and provides essential skills training to candidate CHWs. Turnaround Tuesday's recruitment processes are aided by its strong connections to roughly 40 institutions throughout the city that are entrenched in the 24 zip codes targeted for employment opportunities. Once people are selected, they are required to take the TABE, or the Tests of Adult Basic Education, which ascertain candidates' skills and aptitudes in reading, math, and English. Those who achieve an eighth grade level for reading and math undergo a 30-hour central skills training that is geared toward acclimating them to working in professional environments. Turnaround

Tuesday staff follows those who go through its program for two years, to provide additional professional navigation, advocacy, and support.¹³³

CHWs receive didactic, competency-based training from the Central Maryland Area Health Education Center, which has become an accredited certified CHW training program. Also, even after CHWs are hired by the partnering hospitals, BACH supports CHWs' general professional development through a roving career coach. This serves to reinforce principles of workplace readiness, which is particularly relevant because the CHWs hired through this program are Baltimore City residents who are long-term unemployed or underemployed. Across the board, BPHWC CHWs provide care coordination, health education, health system navigation, and linkages to social services, although the specific tasks performed, populations served, and disease contexts may vary. 134

Baltimore Health Corps

The Baltimore Health Corps was formed as a result of the pandemic, in a desire to address the co-occurring public health and economic crises. It is run through a collaboration between Baltimore City Mayor's Office of Employment Development and the Baltimore City Health Department (BCHD), in partnership with Health Care Access Maryland (HCAM), the Johns Hopkins Program for International Education in Gynecology and Obstetrics (Jhpiego), and Baltimore Corps. All CHWs receive a seven-day training that includes basic COVID disease education, elements of contact tracing, and role-playing practice prior to engaging with the public. Of its targeted 300 hires, approximately 190 CHWs are intended to provide contact tracing and call center support to reduce the spread of COVID-19, while approximately 60 CHWs focus on care coordination in the context of the novel coronavirus—namely, connecting individuals to services that will help them quarantine,

navigate challenges associated with the pandemic, and connect with other resources to address other social issues they may have. Contact tracers provide a warm hand-off to CHWs focused on care coordination, housed in the BCHD's Division of Aging and HCAM. HCAM offers its own in-house training. The care coordination CHWs aim to equip CHWs facilitating care coordination with the tools required for addressing and mitigating the impact of SDOH on Baltimore City residents referred to them.

Much like the BPHWC, the Baltimore Health Corps attempts to provide strong training and onboarding for new entrants into the CHW workforce, in view of the fact that those recruited into the program come from a variety of backgrounds and may not have any experience in public health. Another similarity with the BPHWC is the effort made to provide comprehensive wraparound services for CHWs employed through the program. Baltimore Health Corps offers its CHWs legal services, behavioral health services, financial empowerment, coaching, and career navigation. Given the short-term nature of the position (eight to 12 months), the provision of these supports is designed to prepare Baltimore Health Corps CHWs with the requisite skills and capacity to enter (or reenter) the workforce as competitive job applicants. Some CHWs who do contact tracing received didactic training from the Central Maryland Area Health Education Center.

Presently, a comprehensive evaluation of the Baltimore Health Corps is underway. ¹³⁵ A key piece of the evaluation will ascertain the overall demographic composition of applicants and subsequent hires to the program, as well as the extent to which equity goals were met in terms of hiring from the neighborhoods hardest hit by COVID-19 (namely, the proportion of Baltimore Health Corps CHWs residing in the "Black Butterfly" neighborhoods, or in neighborhoods experiencing the highest rates of unemployment due to the COVID-19

pandemic). It will also assess the overall impact of the program on contact tracing efforts.

CHW-Centered Training and Support

One of the distinguishing features of both programs is that they provided funding for wraparound services, as a part of their overall job-readiness goals. Key informants involved with these initiatives expressed that the need to do so is based in the reality that these programs are, as one interviewee stated, "recruiting folks who are in the same communities facing the most glaring disparities, in terms of things like the socioeconomic kind of indicators of health." Understanding the life circumstances shaping the context under which CHWs themselves live is critical to supporting the workforce.

Challenges Faced by Baltimore's CHW Workforce

Despite the presence of various resources available to support Baltimore's CHWs, our key informants, particularly those who are CHWs or train, oversee, and/or deploy them, identified a number of challenges that they confront as they carry out their work. These include not feeling a part of the broader health care team; concerns about safety; concerns about unstable funding; and a lack of access to up-to-date equipment to support job performance. Variability in the quality of supervision and low compensation (and its implications for limited career trajectories within the CHW profession) were the most frequently mentioned topics.

Supervision

CHWs entering the workforce through the auspices of the BPHWC, or Baltimore City Health Corps, receive wraparound support to buttress their overall professional development. This type of support is not available for every CHW. In fact, even BPHWC CHWs were reported to experience varying experiences with the level of supervision

"Again, I think the best supervisors are people who understand CHWs, understand the community. The majority of the time, supervisors are not from the community. They're not even from the neighborhood. They're not even from the city or the county, and they just drive to work, so they don't understand the community, because they're just driving in and driving out. So some of the things that you need to do in the community you can't do, because they don't understand the community."

– Key Informant, CHW

"One of the biggest concerns that I have about community health workers' supervision is that supervisors and managers often don't understand what the community health worker role is, and because they don't, they may not value it."

– Key Informant, CHW Trainer

and support they receive at their place of employment. Several key informants noted that once CHWs are placed within the specific organizations they work in, the quality and nature of the supervision provided is dependent on the organization's capacity to recognize the unique needs of CHWs, and the degree to which supervisors are aware of the range of duties CHWs are able to assume and their need for ongoing training, as opposed to a fundamental lack of understanding about the CHW role. This affects the extent of their integration into care teams and the operations of the organizations. As one key informant expressed, employers looking for "self-starters" may lack the will and/or resources to provide direct supervision and professional support. On the other hand, several key informants

proposed that those with extensive personal and professional experience working in the community, particularly social workers and community health nurses, are well suited to supervise CHWs.

CHW Compensation

All of our key informants who were CHWs, or from entities that train, oversee, and employ them, expressed concern with CHWs' compensation, linking low wages to an underappreciation of the role, and being incommensurate with the actual level of complexity associated with being a CHW. Low compensation was also cited as a contributor to correspondingly low job satisfaction, leading to high turnover. Some key informants explicitly

linked low salaries to CHWs' willingness to remain in the profession, especially if they did not perceive a career ladder to aspire to on top of funding instability for their positions. The quote from one key informant found on p. 33 aptly captures the sentiments expressed among those interviewed.

GENERATING SUSTAINABLE FINANCING FOR BALTIMORE CITY CHWs

As Drs. Kangovi and Blackstock state in an op-ed published in the Washington Post, "we are concerned that our tendency to overlook community health workers stems from the same systemic racism that created many health disparities in the first place. We must not continue to ignore these often marginalized and underpaid heroes."136 In a similar vein, the path toward sustainable financing mechanisms for Baltimore's CHWs must be rooted in an appreciation for who CHWs are as individuals and as a workforce. This entails grasping the reality that, while CHWs' empathy, resilience, and exceptional interpersonal skills are central to their effectiveness, the majority are from the same disinvested and disenfranchised communities they seek to help, which positions the workforce at large at the cusp of social and economic precarity. This understanding implies that the issue of sustainable funding is, itself, a matter of health equity, and that adopting CHW-centric strategies to support the workforce has implications for CHWs, the communities they reside in and endeavor to help, and, ultimately, the patients and families who receive their invaluable services. 137

Moreover, sustainable financing must also account for the diversity of settings CHWs work in; while Medicaid reimbursement may be on the horizon for those employed in hospitals and clinics, it may not be feasible for CHWs working for the City Health Department or community-based organizations with no linkages to the broader health care system.

Consequently, differences in compensation between settings may inadvertently create disparities within the workforce.

On the face of it, the state of Maryland appears to have the ingredients in place to support sustainable funding for its CHW workforce and, by extension, Baltimore-based CHWs. Under the guidance of its robust Community Health Worker Advisory Committee, the state has delineated CHWs' core competencies, instituted certification processes, and accredited CHW training programs. Maryland also has an active statewide CHW Association, which supports peer-learning, ongoing training, and advocacy. Indeed, much of what was originally proposed as essential to standardizing Maryland's CHW workforce has been achieved.

Nonetheless, there is still much work to be done to generate sustainable funding for CHWs' services. We have identified several actions, encapsulated within four recommended steps, whose execution is paramount to attain this goal:

- Conducting a comprehensive, systematic appraisal of Baltimore City's CHW workforce;
- Building up city- and statewide institutional support for the CHW workforce;
- **3.** Pursuing long-term financing strategies through statewide payment reform, Medicaid reimbursement, and philanthropic endeavors; and,
- **4.** Convening key stakeholders to engage in continual advocacy for the CHW workforce.

CHWs must be at the helm of leading these efforts, working alongside other stakeholders to spearhead the conceptual and operational aspects needed to create sustainable funding mechanisms for their services.

Recommendations

1. Conduct a comprehensive appraisal of the CHW workforce. There are significant gaps in our grasp of the CHW workforce in Baltimore City, and the state at large, with respect to how many CHWs work in the city and state, the full complement of tasks they perform, and their wages/salaries, as well as employers' perspectives about CHWs, the perceived and actual benefits of certification, the alignment between CHWs' training and competencies with patients'/clients' outcomes, and employers' institutional capacity to sustain CHWs as employees. Louisiana and Minnesota are among a handful of states that have undertaken a comprehensive appraisal of their respective CHW workforces. We recommend that the city and state health departments do the same. Specifically, the city and state should enlist consultants with expertise in the CHW model and, in partnership with CHWs and their allies, commission a comprehensive assessment of the workforce. This assessment should employ mixed methods to fully characterize barriers and facilitators to support the CHW workforce across multiple domains.

A CHW workforce assessment is an essential first step to shoring up the workforce for a number of reasons. Chief among them is that explicating local CHWs' roles, employment, the institutional elements related to CHW-delivered services, and training will shed light on how best to support CHWs. Furthermore, collaborating with CHWs and their allies will ensure that the collection of such information will amplify the stated needs, experiences, and preferences of CHWs. Table 4 draws from the aforementioned assessments performed in Louisiana¹³⁸ and Minnesota,¹³⁹ and captures six categories of information that must be collected to understand the landscape of the CHW workforce in Baltimore City. The CHW assessment should be repeated every three to five years, to maintain an up-to-date repository of data about CHWs that can be used to inform the development and implementation of local CHW policies.

- 2. Increase the city- and statewide organizational capacity to support the CHW workforce. Currently, Maryland's CHW initiatives reside in the state health department's Department of Population Health. A small but dedicated staff works closely with the members of the CHW Advisory Committee to support the certification and accreditation process, identify opportunities for supplementary training for CHWs, and collaborate with peers in neighboring states in an effort to cultivate regional partnerships. However, key informant interviews suggest that the low number of personnel supporting the statewide (and, by implication, citywide) CHW workforce poses a barrier to initiating efforts to partner with the state's Medicaid office and initiate discussion around Medicaid reimbursement for CHWs.
 - **a.** Allocate state and philanthropic funds to contract with consultants that will support CHW-related initiatives occurring through the auspices of the Department of Population Health. Hiring additional staff, including former CHWs trained to focus on policy initiatives related to the workforce, to work for the Department of Population Health is an important long-term goal to strengthen the statewide infrastructure supporting the CHW workforce. In the short-term, hire consultants with experience and expertise working as, or with, CHWs, to support existing efforts underway within the Department of Population Health by identifying best practices for hiring, training, supervising, and paying CHWs; ascertaining emerging training and certification needs; and interfacing with the state's Medicaid office and philanthropic organizations.

"But at the same time, when we're looking at the wages in the area and the classification of community health workers, primarily as frontline, very entry level positions, I have the perception that the jobs, when you look at how much a CHW is paid, are undervalued. That hourly wage is asking for a lot, because the community health workers, whether they've kind of switched up their model in light of the COVID pandemic and adapted very quickly to kind of remote service delivery primarily, or if they're in the emergency room, they were previously going out in the community – there's a lot of documentation, there's a lot of kind of advanced thinking and decision-making that goes on for these roles. And for all that, we're saying these are entry level positions. The fact that the people who sometimes do really well at their job, they're getting paid not that much to do it. And the expectations from the employers are actually very high."

– Key Informant, CHW Trainer

Table 4: Recommended Domains and Topics for Community Health Worker Assessment

DOMAIN	TOPICS OF INTEREST
CHWs demographic and professional characteristics	 Geographic/neighborhood data (to discern the degree to which CHWs are being hired in neighborhoods within the "Black Butterfly" in Baltimore) Sociodemographic characteristics (race/ethnicity, age, educational attainment) Employment status (part-time, full-time, volunteer, paid, etc.) Place of employment (type of organization) Length of time as CHW Professional titles
CHW role	 Common roles and activities fulfilled and performed by community health workers, and the extent of their alliance with the state's core competencies Populations most commonly served by CHWs Health conditions CHWs help to address Annual earnings and perceptions of salaries Job satisfaction and perceptions of professional trajectory within the field Perceived best practices for CHW-supervisor relationships Common successes and challenges associated with being a CHW Resources provided to CHWs vs. those that are actually needed Perceived connectedness with, and commitment to, communities being served Health and safety concerns Continuity within profession
CHW program administration (primarily for CHW employers)	 Desired qualifications for CHWs Strategies for and barriers to hiring CHWs Strategies for and barriers to supervising CHWs Institutional funding to support CHWs (salary, benefits, ongoing training, etc.) Common CHW models used within organization (if any)
Training	 Training components Additional training topics (beyond those related to core competencies) Desired training topics Benefits and concerns regarding CHW training (from CHWs' and employers' perspectives)
Certification	 Benefits of certification for CHW Concerns regarding certification Barriers to certification Perceived utility of certification Perceptions of certification and Medicaid reimbursement
Sustainability	Funding used by the organization to continue employing CHWs

b. Create a Baltimore City CHW task force. Baltimore City has a unique CHW landscape that has been shaped by enduring programs housed within its health department and the presence of community-based organizations that have propelled the CHW role as an avenue for workforce entry and ongoing professional development. Consequently, there is a need to convene a city-specific task force that can support the development, implementation, evaluation, and translation of successful CHW initiatives throughout the city, across a variety of organizational settings. Given their expertise in promoting a holistic, person-centered approach to recruiting, training, and supporting CHWs, the proposed task force must, at the very least, include representation from the Baltimore Alliance for Careers in Healthcare, Turnaround Tuesday, and the Central Maryland Area Health Education Center. CHWs who live and/or work in Baltimore City must also comprise the task force's membership.

We suggest that the task force take the lead in identifying and executing context-specific, evidence-based strategies to 1) aid entry-level CHWs in acculturating to professional environments; 2) support seasoned CHWs interested in remaining in the field to identify opportunities for further career advancement; and 3) assist organizations in building their institutional capacity to incorporate CHWs into their programs through appropriate training and supervision. The task force could be either housed in the city's health department or jointly led by the aforementioned organizations. To foster CHWs' self-determination and advocacy, the task force's membership should be predominated by CHWs and must also include CHW supervisors, representatives from employing entities, and those occupying positions that are most likely to interact with CHWs (e.g., social workers, nurses and/or nurse care managers, social service personnel, and health care providers).

- 3. Cultivate, implement, sustain, and advocate for long-term financing strategies to support the CHW workforce. One single source of funding to support CHWs is neither realistic nor advisable. A blend of grant mechanisms, philanthropic sources, and federal resources is necessary to support the CHW workforce:
 - a. Initiate and maintain statewide payment reform to expand existing funding mechanisms. The program funding the HSCRC's Baltimore-based project was recently approved for an extra three years and will end in 2022, which means that it will have been in operation for a total of six years. More time is needed to accomplish the ambitious goals of dually addressing systemic poverty and economic deprivation by hiring Baltimore City residents as CHWs, and promoting population health by attending to social determinants of health. We propose that the Population Health Workforce Support for Disadvantaged Areas Program continue to be funded past 2022, with longer terms (five to seven years) for each cycle of the program. This will require commitment from the partnering hospitals and community-based organizations to work together to identify and scale up best practices for hiring, training, employing, and supervising CHWs. Extending the length of the program cycle will allow for a shared learning collaborative that can yield best practices to support the CHW workforce, not only in Baltimore City, but also across the state.

"I mean, we're providing a service, we're educating and we're trained to provide a service. If we're trained and we're certified to provide a service, then why can't we be able to bill for our time that is spent with the population that we're working with?"

– Key Informant, CHW

The HSCRC recently launched a Regional Partnership Catalyst Program, which began on January 1, 2021, and will conclude on December 31, 2026. The Regional Partnership Catalyst Program aims to foster collaborations between hospitals and community partners, and to establish the requisite infrastructure to disseminate evidence-based interventions. Six of the Regional Partnerships focus on diabetes prevention and management, while three target the development of behavioral health crisis programs. Notably, some of the projects funded through this initiative include the delivery of CHW services. If proven effective, we endorse the renewal of this program and adoption of longer funding cycles (seven years). This recommendation holds for the Health Equity Resource Communities, too.

b. Pursue Medicaid reimbursement. Given health care transformation initiatives currently underway and those recently implemented, the state of Maryland has levers in place to increase flexibility and incentives for Medicaid MCOs to expand CHWs in their multidisciplinary care teams. Maryland has the capacity to institute Medicaid reimbursement for its CHWs. The question is, does the state have the will to do so? We believe that it does, but there are two important factors to consider. The first, as noted by a few key informants, is the lack of agreement is the lack of agreement, among those at the state level (particularly, the Maryland Board of Nursing), as to the utility of Medicaid reimbursement for CHWs. The second is the lack of consensus around the link between certification and reimbursement; although the key informants in this report were unanimous in their assertion of coupling certification with reimbursement, this belief is far from being universally held. Anecdotally, a considerable number of CHWs and CHW allies believe that reimbursement should not be confined to those who have been certified, and they regard certification as a process that undermines the grassroots, community-based orientation of the CHW model.

Bearing these considerations in mind, Medicaid reimbursement remains the most stable means of financing CHWs. Pursuing Medicaid reimbursement demands the coordinated and sustained engagement of CHWs, CHW champions, CHW employers, and the state's Medicaid leaders. All relevant stakeholders must become and remain ideologically and operationally aligned with respect to the necessity of Medicaid reimbursement, the

strategies they will employ to secure Medicaid reimbursement, and the parameters for reimbursement. Stakeholders must decide if they will pursue reimbursement through a 1115 Waiver or through the submission of a State Plan Amendment (SPA). Notably, the SPA offers broader coverage than Medicaid waivers. Furthermore, all parties involved must have consensus on the parameters of reimbursement. They must determine if reimbursement will be constrained to those who have been certified and which services should be reimbursed. They should also heed the experiences of other states, whose challenges enumerating which services are eligible for reimbursement have led to a narrow range of services actually deemed eligible for reimbursement; and of analogous professions such as home health aides, whose misclassification as independent contractors hinders Medicaid reimbursement. It is imperative that stakeholders work in close collaboration to properly configure Medicaid reimbursement so that service coverage is congruent with CHWs' scope of practice, the specific suite of tasks associated with their work (e.g., travel to work with patients/clients), and patients'/clients' social determinants of health. It is possible that analyses ascertaining CHWs' cost effectiveness and return on investment are needed to generate buy-in for Medicaid reimbursement. If this is the case, the Maryland Department of Health should work with internal and external entities, including academic institutions and/or other consultants, to conduct comprehensive process and impact appraisals of innovative CHW programs occurring in Baltimore City or in the state of Maryland.

- c. Encourage philanthropic organizations to fund CHW programs. As has been previously stated, CHWs in Baltimore City work within a variety of settings. Many CHWs are employed by and based in the city's health department or other community-based organizations, which require other types of funding avenues to sustain their work. Encouraging sustained financial engagement from local philanthropic organizations is essential to composing a suite of financing strategies that will support the long-term viability of the CHW workforce. Importantly, philanthropic entities may have the flexibility to fund CHW-delivered services that are not easily amenable to funding from governmental organizations, in particular, interventions that focus primarily on ameliorating social determinants of health, irrespective of the health conditions an individual or family may be grappling with.
- 4. Convene key stakeholders throughout the city and state to advocate for long-term financing mechanisms for CHWs. Any efforts to strengthen the city's CHW workforce by developing sustainable funding for the CHW model must incorporate coordinated and sustained multisectoral stakeholder engagement. Leaders within the city and state health departments, in partnership with the CHW Advisory Committee and the Maryland CHW Association, must convene CHWs, philanthropic organizations, insurers, CHW employers, and CHW supervisors and come to consensus on an appropriate set of long-term funding strategies to pursue.

CONCLUSIONS

The pandemic has illuminated the stark fissures in society that drive inequities in health outcomes, access to health care, and social service navigation. Yet, racial/ethnic health disparities are not a new phenomenon. The realities of attending to the needs of a diverse population, including a deepening understanding of social determinants of health, demand a reimagining of community-based health care delivery.

CHWs are a critical part of the solution to addressing pressing health issues. Their use has been implicated in improved health outcomes, improved health care delivery, and lower health care costs. Despite their promise, there are significant threats to the viability

of this workforce. Chief among them is short-term, unstable funding to support their work. The state of Maryland at large and Baltimore City in particular are primed to serve as a model for the United States with respect to supporting the CHW workforce. Doing so will entail shoring up key aspects of their individual and collective professional development and creating sustainable financing arrangements. This has ramifications for reducing health disparities by ameliorating the adverse impact of social determinants of health, improving employment rates, and, ultimately, promoting equity for members of marginalized communities.

ABOUT THE AUTHORS

Chidinma A. Ibe, PhD is an Assistant Professor of General Internal Medicine at the Johns Hopkins University School of Public Health, with a joint appointment in the Department of Health, Behavior and Society at the Johns Hopkins Bloomberg School of Public Health. She is the Associate Director of Stakeholder Engagement for the Johns Hopkins Center for Health Equity and has extensive experience developing, implementing, and evaluating community health worker programs in the metropolitan Baltimore area. Her program of research focuses on the role of community health workers in addressing social determinants of health, and reducing health disparities, among historically marginalized communities. An applied researcher, Dr. Ibe employs implementation science principles and frameworks to identify factors that influence community health workers' incorporation into community-based, medical, and public health settings.

Obie McNair, MPH is a 3rd-year doctoral student in the Department of Health, Behavior, and Society at the Johns Hopkins Bloomberg School of Public Health. His research areas include Black Men's Health and HIV/STI prevention among Black Men who have Sex with Men. His latest research aims to examine the impact of cardiometabolic risk and its associations with HIV risk among Black Sexual Minority Men. Prior to commencing his doctoral studies, he served in the roles of Clinical Research Coordinator and Program Evaluator for My Brother's Keeper, Inc., a public health community based-organization in his hometown of Jackson, MS.

Endnotes

- Braveman, P, E. Arkin E, T. Orleans, D. Proctor, and A. Plough. 2017. "What Is Health Equity? And What Difference Does a Definition Make?" Robert Wood Johnson Foundation. Princeton, NJ. Retrieved from www.rwjf.org/ en/library/research/2017/05/what-is-health-equity-.html
- 2 Ibid.
- 3 Israel, B. A., and K. R. McLeroy. 1985. "Social networks and social support: implications for health education. Introduction." Health Educ Q 12 (1): 1-4. https://doi.org/ 10.1177/109019818501200101. www.ncbi.nlm.nih.gov/ pubmed/3980237
- 4 Kim, K., J. S. Choi, E. Choi, C. L. Nieman, J. H. Joo, F. R. Lin, L. N. Gitlin, and H. R. Han. 2016. "Effects of Community-Based Health Worker Interventions to Improve Chronic Disease Management and Care Among Vulnerable Populations: A Systematic Review." Am J Public Health 106 (4): e3-e28.
- 5 Rosenthal, E. L., J. N. Brownstein, C. H. Rush, G. R. Hirsch, A. M. Willaert, J. R. Scott, L. R. Holderby, and D. J. Fox. 2010. "Community Health Workers: Part of The Solution." *Health Aff (Millwood)* 29 (7): 1338-42. https://doi.org/10.1377/hlthaff.2010.0081
- Freeman, J. 2016. "Community Health Workers: An Important Method for Addressing the Social Determinants of Health." Fam Med 48 (4): 257-9. www.ncbi.nlm.nih.gov/pubmed/27057602
- 7 Krieger, J., L. Song, and M. Philby. 2015. "Community Health Worker Home Visits for Adults With Uncontrolled Asthma: The Homebase Trial Randomized Clinical Trial." JAMA Intern Med 175 (1): 109-17.
- Norris, S. L., F. M. Chowdhury, K. Van Le, T. Horsley, J. N. Brownstein, X. Zhang, L. Jack, Jr., and D. W. Satterfield. 2006. "Effectiveness of Community Health Workers in the Care Of Persons with Diabetes." Diabet Med 23 (5): 544-56.
- Brownstein, J. N., F. M. Chowdhury, S. L. Norris, T. Horsley, L. Jack, Jr., X. Zhang, and D. Satterfield. 2007. "Effectiveness of Community Health Workers in the Care of People with Hypertension." Am J Prev Med 32 (5): 435-47
- 10 Peretz, P. J., L. A. Matiz, S. Findley, M. Lizardo, D. Evans, and M. McCord. 2012. "Community Health Workers as Drivers of a Successful Community-based Disease Management Initiative." Am J Public Health 102 (8): 1443-6. https://doi.org/10.2105/ajph.2011.300585
- 11 Kangovi, S., N. Mitra, D. Grande, H. Huo, R. A. Smith, and J. A. Long. 2017. "Community Health Worker Support for Disadvantaged Patients With Multiple Chronic Diseases: A Randomized Clinical Trial." Am J Public Health 107 (10): 1660-1667. https://doi.org/10.2105/ajph.2017.303985
- Kim, K., J. S. Choi, E. Choi, C. L. Nieman, J. H. Joo, F. R. Lin, L. N. Gitlin, and H. R. Han. 2016. "Effects of Community-Based Health Worker Interventions to Improve Chronic Disease Management and Care Among Vulnerable Populations: A Systematic Review." Am J Public Health 106 (4): e3-e28. https://doi.org/10.2105/ajph.2015.302987
- Jonas, J. A., C. S. Leu, and M. Reznik. 2020. "A Randomized Controlled Trial of a Community Health Worker Delivered Home-Based Asthma Intervention to Improve Pediatric Asthma Outcomes." J Asthma: 1-12. https://doi.org/10.108 0/02770903.2020.1846746

- Shreeve, K., E. R. Woods, S. J. Sommer, M. Lorenzi, K. Monteiro, S. Nethersole, and U. Bhaumik. 2021. "Community Health Workers in Home Visits and Asthma Outcomes." *Pediatrics* 147 (4). https://doi.org/10.1542/peds.2020-011817
- Spencer, M. S., E. C. Kieffer, B. Sinco, G. Piatt, G. Palmisano, J. Hawkins, A. Lebron, N. Espitia, T. Tang, M. Funnell, and M. Heisler. 2018. "Outcomes at 18 Months From a Community Health Worker and Peer Leader Diabetes Self-Management Program for Latino Adults." Diabetes Care 41 (7): 1414-1422. https://doi.org/10.2337/dc17-0978
- 16 Kangovi, S., N. Mitra, D. Grande, J. A. Long, and D. A. Asch. 2020. "Evidence-Based Community Health Worker Program Addresses Unmet Social Needs And Generates Positive Return On Investment." Health Aff (Millwood) 39 (2): 207-213.
- 17 Gaskin, D. J., R. Vazin, R. McCleary, and R. J. Thorpe, Jr. 2018. "The Maryland Health Enterprise Zone Initiative Reduced Hospital Cost And Utilization In Underserved Communities." Health Aff (Millwood) 37 (10): 1546-155.
- 18 Centers for Disease Control and Prevention. 2017. "Alzheimer's Disease and Healthy Aging." Retrieved from www.cdc.gov/aging/disparities/index.htm
- Hardeman, R. R., and J. Karbeah. "Examining Racism in Health Services Research: A Disciplinary Self-Critique." Health Serv Res 55 Suppl 2 (Oct 2020): 777-80. https://doi.org/10.1111/14756773.13558. www.ncbi.nlm.nih.gov/pubmed/32976632
- 20 Braveman, P., S. Egerter, and D. R. Williams. 2011. "The Social Determinants of Health: Coming of Age." Annu Rev Public Health 32: 381-98. https://doi.org/10.1146/annurevpublhealth-031210-101218
- 21 Ibid.
- 22 Ibid.
- U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. 2020. "Healthy People 2030, Social Determinants of Health." Retrieved from https://health.gov/healthypeople/objectives-anddata/social-determinants-health
- 24 Centers for Disease Control and Prevention. 2020. "Social Determinants of Health: Know What Affects Health." www.cdc.gov/socialdeterminants/about.html
- 25 Asad, A. L., and M. Clair. 2018. "Racialized legal status as a social determinant of health." Soc Sci Med 199: 19-28. https://doi.org/10.1016/j.socscimed.2017.03.010
- 26 Rotter, M., and M. Compton. 2021. "Criminal Legal Involvement: A Cause and Consequence of Social Determinants of Health." *Psychiatr Serv*: appips202000741. https://doi.org/10.1176/appi.ps.202000741
- 27 Brown, Lawrence T. 2021. The Black Butterfly: The Harmful Politics of Race and Space in America. Baltimore: Johns Hopkins University Press.
- 28 Pietila, Antero. 2010. Not in My Neighborhood How Bigotry Shaped a Great American City. Washington, D.C.: Rowman and Littlefield Publishing Group.

- 29 Grove, M., L. Ogden, S. Pickett, C. Boone, G. Buckley, D.H. Locke, C. Lord, and B. Hall. 2018. "The Legacy Effect: Understanding how Segregation and Environmental Injustice Unfold Over Time in Baltimore." Ann Am Assoc Geogr 108 (2): 524-537.
- 30 Brown, Lawrence T. 2021. The Black Butterfly: The Harmful Politics of Race and Space in America. Baltimore: Johns Hopkins University Press.
- 31 Pietila, Antero. 2010. *Not in My Neighborhood How Bigotry Shaped a Great American City*. Washington, D.C.: Rowman and Littlefield Publishing Group.
- Grove, M., L. Ogden, S. Pickett, C. Boone, G. Buckley, D.H. Locke, C. Lord, and B. Hall. 2018. "The Legacy Effect: Understanding how Segregation and Environmental Injustice Unfold Over Time in Baltimore." Ann Am Assoc Geogr 108 (2): 524-537.
- 33 Sadler, R. C., U. Bilal, and C. D. Furr-Holden. 2021. "Linking historical discriminatory housing patterns to the contemporary food environment in Baltimore." Spat Spatiotemporal Epidemiol 36: 100387. https://doi.org/10.1016/j.sste.2020.100387
- 34 Brown, Lawrence T. 2021. The Black Butterfly: The Harmful Politics of Race and Space in America. Baltimore: Johns Hopkins University Press.
- 35 Baltimore City Health Department. 2017. 2017 Neighborhood Health Profile for Greater Roland Park/ Poplar Hill, June 2017. Retrieved from https://health. baltimorecity.gov/sites/default/files/NHP%202017%20 -%2022%20Greater%20Roland%20Park-Poplar%20 Hill%20(rev%206-9-17).pdf
- 36 Baltimore City Health Department. 2017. 2017 Neighborhood Health Profile for Mt. Washington/Coldspring, June 2017. Retrieved from https://health.baltimorecity. gov/sites/default/files/NHP%202017%20-%2038%20 Mt%20Washington-Coldspring%20(rev%206-9-17).pdf
- 37 Baltimore City Health Department, 2017. 2017 Neighborhood Health Profile for Madison/East End, *June* 2017. Retrieved from https://health.baltimorecity.gov/sites/default/files/NHP%202017%20-%2033%20Madison-East%20End%20(rev%206-9-17).pdf
- 38 Baltimore City Health Department. 2017. 2017 Neighborhood Health Profile for Sandtown-Winchester/ Harlem Park, June 2017. Retrieved from https://health.baltimorecity.gov/sites/default/files/NHP%202017%20-%2047%20Sandtown-Winchester-Harlem%20Park%20 (rev%206-9-17).pdf
- 39 Baltimore Neighborhood Indicators Alliance-Jacob France Institute. 2021. Census Demographics Map Gallery. Percent of Residents – Black/African American (Non-Hispanic), 2015-2019. Retrieved from https://bniajfi.org/ wp-content/uploads/2021/03/Paa19map.jpg
- 40 Baltimore Neighborhood Indicators Alliance-Jacob France Institute. 2021. Census Demographics Map Gallery. Percent of Family Households Living Below the Poverty Line, 2015-2019. Retrieved from https://bniajfi.org/wp-content/ uploads/2021/03/Hhpov19map.jpg
- 41 Baltimore City Health Department. 2017. 2017 Neighborhood Health Profile for Greater Roland Park/ Poplar Hill, June 2017. Retrieved from https://health. baltimorecity.gov/sites/default/files/NHP%202017%20 -%2022%20Greater%20Roland%20Park-Poplar%20 Hill%20(rev%206-9-17).pdf

- 42 Baltimore City Health Department. 2017. 2017

 Neighborhood Health Profile for Inner Harbor/Federal Hill,
 June 2017. Retrieved from https://health.baltimorecity.
 gov/sites/default/files/NHP%202017%20-%2030%20
 Inner%20Harbor-Federal%20Hill%20(rev%206-9-17).pdf
- 43 Baltimore City Health Department. 2017. 2017 Neighborhood Health Profile for Madison/East End, June 2017. Retrieved from https://health.baltimorecity.gov/ sites/default/files/NHP%202017%20-%2033%20Madison-East%20End%20(rev%206-9-17).pdf
- 44 Baltimore City Health Department. 2017. 2017 Neighborhood Health Profile for Sandtown-Winchester/ Harlem Park, June 2017. Retrieved from https://health.baltimorecity.gov/sites/default/files/NHP%202017%20-%2047%20Sandtown-Winchester-Harlem%20Park%20 (rev%206-9-17).pdf
- 45 Rosenthal, E. L., N. Wiggins, J. N. Brownstein, S. Johnson, I.A. Borbon, R. Rael, and L. Blondet. 1998. "The Final Report of The National Community Health Advisor Study: Weaving the Future." Tucson, AZ: University of Arizona.
- 46 The Community Health Worker Core Consensus (C3)
 Project. 2018. "A Report of the C3 Project Phase 1 and
 2: Together Leaning Toward the Sky." Retrieved from
 https://0d6c00fe-eae1-492b-8e7d-80acecb5a3c8.filesusr.
 com/d/7ec423_2b0893bcc93a422396c744be8c1d54d1.
 pdf, Pgs. 9 12
- 47 MHP Salud. No date (n.d.). "History of Community Health Workers (CHWs) In America." Retrieved from Shah, M. K., M. Heisler, and M. M. Davis. 2014. "Community Health Workers And The Patient Protection And Affordable Care Act: An Opportunity for a Research, Advocacy, and Policy Agenda." J Health Care Poor Underserved 25 (1): 17-24.
- 48 Shah, M. K., M. Heisler, and M. M. Davis. 2014.

 "Community Health Workers And The Patient Protection
 And Affordable Care Act: An Opportunity for a Research,
 Advocacy, and Policy Agenda." J Health Care Poor
 Underserved 25 (1): 17-24.
- 49 Ibid.
- 50 Katzen, A., and M. Morgan. 2014. "Affordable Care Act Opportunities for Community Health Workers." Cambridge, MA: Center for Health Law & Policy Innovation, Harvard Law School.
- 51 Shah, M. K., M. Heisler, and M. M. Davis. 2014.

 "Community Health Workers And The Patient Protection
 And Affordable Care Act: An Opportunity for a Research,
 Advocacy, and Policy Agenda." J Health Care Poor
 Underserved 25 (1): 17-24.
- 52 Islam, N., S. K. Nadkarni, D. Zahn, M. Skillman, S. C. Kwon, and C. Trinh-Shevrin. 2015. "Integrating community health workers within Patient Protection and Affordable Care Act implementation." J Public Health Manag Pract 21 (1): 42-50.
- 53 Katzen, A., and M. Morgan. 2014. "Affordable Care Act Opportunities for Community Health Workers." Cambridge, MA: Center for Health Law & Policy Innovation, Harvard Law School.
- 54 The Community Health Worker Core Consensus (C3)
 Project. 2018. "A Report of the C3 Project Phase 1 and
 2: Together Leaning Toward the Sky." Retrieved from
 https://0d6c00fe-eae1-492b-8e7d-80acecb5a3c8.filesusr.
 com/d/7ec423_2b0893bcc93a422396c744be8c1d54d1.
 pdf, 9-12

- 55 Ibid.
- 56 Albritton, E. 2016. "Health Equity and Health System Transformation: How States Can Fund Community Health Workers Through Medicaid to Improve People's Health, Decrease Costs, and Reduce Disparities." Families USA. Retrieved from https://familiesusa.org/resources/how-states-can-fund-community-health-workers-through-medicaid-to-improve-peoples-health-decrease-costs-and-reduce-disparities
- Brooks, B.A., S. Davis, L. Frank-Lightfoot, P.A. Kulbok, S. Poree, and L. Sgarlata. 2014. "Building A Community Health Worker Program: The Key to Better Care, Better Outcomes, & Lower Costs." Community Health Works: Chicago, IL. Retrieved from www.aha.org/system/ files/2018-10/chw-program-manual-2018-toolkit-final.pdf
- 58 Spencer, A. 2018. "Integrating CHWs Into State and Local Chronic Disease Prevention Efforts Program and Financing Considerations." Center for Health Care Strategies, Robert Wood Johnson Foundation. Retrieved from www.movinghealthcareupstream.org/wp-content/uploads/2018/06/integrating-community-health-workers-into-domain-3d-projects.pdf
- Kieffer, E.C., J. Lapedis, C. Rheingans, U.P. Carrie, and M. Udow-Phillips. (2018) "Advancing the Profession and Sustainability of Community Health Workers." Center for Healthcare Research and Transformation, University of Michigan. Retrieved from https://chrt.org/publication/advancing-profession-sustainability-community-health-workers/
- 60 Albritton, E. 2016. "Health Equity and Health System Transformation: How States Can Fund Community Health Workers Through Medicaid to Improve People's Health, Decrease Costs, and Reduce Disparities." Families USA. Retrieved from https://familiesusa.org/resources/how-states-can-fund-community-health-workers-through-medicaid-to-improve-peoples-health-decrease-costs-and-reduce-disparities/
- 61 Brooks, B.A., S. Davis, L. Frank-Lightfoot, P.A. Kulbok, S. Poree, and L. Sgarlata. 2014. "Building A Community Health Worker Program: The Key to Better Care, Better Outcomes, & Lower Costs." Community Health Works: Chicago, IL. Retrieved from www.aha.org/system/ files/2018-10/chw-program-manual-2018-toolkit-final.pdf
- 62 Spencer, A. 2018. "Integrating CHWs Into State and Local Chronic Disease Prevention Efforts – Program and Financing Considerations." Center for Health Care Strategies, Robert Wood Johnson Foundation. Retrieved from www.movinghealthcareupstream.org/wp-content/ uploads/2018/06/integrating-community-health-workersinto-domain-3d-projects.pdf
- Kieffer, E.C., J. Lapedis, C. Rheingans, U.P. Carrie, and M. Udow-Phillips. (2018) "Advancing the Profession and Sustainability of Community Health Workers." Center for Healthcare Research and Transformation, University of Michigan. Retrieved from https://chrt.org/publication/advancing-profession-sustainability-community-health-workers/
- 64 Ibid.
- 65 Brooks, B.A., S. Davis, L. Frank-Lightfoot, P.A. Kulbok, S. Poree, and L. Sgarlata. 2014. "Building A Community Health Worker Program: The Key to Better Care, Better Outcomes, & Lower Costs." Community Health Works: Chicago, IL. Retrieved from www.aha.org/system/ files/2018-10/chw-program-manual-2018-toolkit-final.pdf

- 66 Lapidos, A., J. Lapedis, and M. Heisler. 2019. "Realizing the Value of Community Health Workers - New Opportunities for Sustainable Financing." N Engl J Med 380 (21): 1990-1992. https://doi.org/10.1056/NEJMp1815382
- 67 Humphry, J. and J. Kiernan. 2019. "Insights in Public Health: Community Health Workers are the Future of Health Care: How can we Fund these Positions?" Hawaii J. Public Health 78 (12) (December 01): 371-374.
- 68 Humphry, J. and J. Kiernan. 2019. "Insights in Public Health: Community Health Workers are the Future of Health Care: How can we Fund these Positions?" Hawaii J. Public Health 78 (12) (December 01): 371-374.
- 69 Albritton, E. 2016. "Health Equity and Health System Transformation: How States Can Fund Community Health Workers Through Medicaid to Improve People's Health, Decrease Costs, and Reduce Disparities." Families USA. Retrieved from https://familiesusa.org/resources/how-states-can-fund-community-health-workers-through-medicaid-to-improve-peoples-health-decrease-costs-and-reduce-disparities/
- 70 "Illinois Governor Signs Sweeping Health Care Law." The National Law Review, May 25, 2021. Retrieved from www.natlawreview.com/article/illinois-governor-signssweeping-health-care-law
- 71 Association of State and Territorial Health Officials. 2021. "Financing Community Health Workers Through Medicaid." Retrieved from https://www.astho.org/StatePublicHealth/Financing-Community-Health-Workers-Through-Medicaid/03-23-21/
- 72 Illinois Health Care and Human Service Reform Act, IL HB0158, 102nd General Assembly, § 5 (IL 2021)
- 73 Association of State and Territorial Health Officials. 2021. "Financing Community Health Workers Through Medicaid." Retrieved from www.astho.org/StatePublicHealth/Financing-Community-Health-Workers-Through-Medicaid/03-23-21/
- 74 AB 191, Assembly Committee on Health and Human Services, Session 81 (NV 2021)
- 75 Sweeney, K. 2019. "Using State Plan Amendments for CHW Medicaid Reimbursement – A Best Practice Case Study from Indiana." Green and Healthy Homes Initiative. Retrieved from www.greenandhealthyhomes. org/wp-content/uploads/Community-Health-Worker-Medicaid-Reimbursement-State-Plan-Amendment final.pdf
- 76 MHP Salud. 2018. "Indiana Medicaid Reimbursement for CHWs." Retrieved from https://mhpsalud.org/medicaid-reimbursement-chws/
- 77 South Dakota Department of Social Services. 2020. "Medicaid Billing & Policy Manual – Community Health Worker." Retrieved from https://dss.sd.gov/docs/medicaid/providers/billingmanuals/Community%20 Health%20Worker%20Services.pdf
- 78 South Dakota Department of Health, South Dakota Department of Social Services. 2017. "South Dakota Community Health Worker Workgroup: Summary & Recommendations." Retrieved from https://doh.sd.gov/documents/diseases/chronic/CHW_WorkgroupRecommendations.pdf

- 79 Hynes, S. 2020. "A Blueprint for Success Medicaid Reimbursement for Community Health Worker Services in SD. South Dakota Cardiovascular Collaborative." [Presentation] Retrieved from https://doh.sd.gov/documents/diseases/chronic/BlueprintforSuccess WebinarSlides.pdf
- 80 Minnesota Community Health Worker Alliance. 2018 "The State of the Community Health Worker Field in Minnesota." Retrieved from https://mnchwalliance.org/wp-content/uploads/2019/01/MNCHWA State-of-the-CHW-Field_Dec_21_2018.pdf
- 81 Minnesota Department of Human Services. 2020. "Community Health Worker - Provider Manual." Retrieved from https://bit.ly/3tEHssx
- 82 Albritton, E. 2016. "Health Equity and Health System Transformation: How States Can Fund Community Health Workers Through Medicaid to Improve People's Health, Decrease Costs, and Reduce Disparities." Families USA. Retrieved from https://familiesusa.org/resources/how-states-can-fund-community-health-workers-through-medicaid-to-improve-peoples-health-decrease-costs-and-reduce-disparities/
- 83 Klein, S., M. Hostetter, R. Tikkanen, and D. McCarthy. 2020 "How New Mexico's Community Health Workers Are Helping to Meet Patients' Needs. The Commonwealth Fund. Retrieved from www.commonwealthfund.org/publications/case-study/2020/feb/new-mexico-community-health-workers
- Arvey, S. R., and M. E. Fernandez. 2012. "Identifying the Core Elements of Effective Community Health Worker Programs: A Research Agenda." Am J Public Health 102 (9): 1633-7. https://doi.org/10.2105/AJPH.2012.300649.
- 85 Miller, P., T. Bates, and A. Katzen. "Community Health Worker Credentialing: State Approaches." 2014. Center for Health Law and Policy Innovation, Harvard Law School www.chlpi.org/wp-content/uploads/2014/06/ CHW-Credentialing-Paper.pdf
- 86 Anthony, S., R. Gowler, G. Hirsch, and G. Wilkinson.
 2009. "Community Health Workers in Massachusetts:
 Improving Health Care and Public Health". Massachusetts
 Department of Public Health Community Health Worker
 Advisory Council. Retrieved from www.mass.gov/doc/community-health-workers-in-massachusetts-improving-health-care-and-public-health-0/download
- 87 Ibe, C. A., L. M. Wilson, J. Brodine, D. Monroe, R. T. Boonyasai, B. Meza, M. M. Tschudy, K. McArthur, and K. A. Robinson. 2020. "Impact of Community Health Worker Certification on Workforce and Service Delivery for Asthma and Other Selected Chronic Diseases."
- 88 Ibid.
- 89 Arvey, S. R., and M. E. Fernandez. 2012. "Identifying the Core Elements of Effective Community Health Worker Programs: A Research Agenda." Am J Public Health 102 (9): 1633-7. https://doi.org/10.2105/AJPH.2012.300649
- 90 Ibe, C. A., L. M. Wilson, J. Brodine, D. Monroe, R. T. Boonyasai, B. Meza, M. M. Tschudy, K. McArthur, and K. A. Robinson. 2020. "Impact of Community Health Worker Certification on Workforce and Service Delivery for Asthma and Other Selected Chronic Diseases."
- 91 Arvey, S. R., and M. E. Fernandez. 2012. "Identifying the Core Elements of Effective Community Health Worker Programs: A Research Agenda." *Am J Public Health* 102 (9): 1633-7. https://doi.org/10.2105/AJPH.2012.300649

- Miller, P., T. Bates, and A. Katzen. "Community Health Worker Credentialing: State Approaches." 2014. Center for Health Law and Policy Innovation, Harvard Law School www.chlpi.org/wp-content/uploads/2014/06/ CHW-Credentialing-Paper.pdf
- 93 Anthony, S., R. Gowler, G. Hirsch, and G. Wilkinson, Geoff. 2009. "Community Health Workers in Massachusetts: Improving Health Care and Public Health". Massachusetts Department of Public Health Community Health Worker Advisory Council. Retrieved from www.mass.gov/doc/community-health-workers-in-massachusetts-improving-health-care-and-public-health-0/download
- 94 Ibe, C. A., L. M. Wilson, J. Brodine, D. Monroe, R. T. Boonyasai, B. Meza, M. M. Tschudy, K. McArthur, and K. A. Robinson. 2020. "Impact of Community Health Worker Certification on Workforce and Service Delivery for Asthma and Other Selected Chronic Diseases."
- 95 Kastor J. A., and E. Y. Adashi. 2011. "Maryland's Hospital Cost Review Commission at 40: A Model For The Country." *JAMA* 306 (10): 1137-8. https://doi.org/10.1001/jama.2011.1311
- 96 Rajkumar, R., A. Patel, K. Murphy, J. M. Colmers, J. D. Blum, P. H. Conway, and J. M. Sharfstein. 2014. "Maryland's all-payer approach to delivery-system reform." N Engl J Med 370 (6): 493-5. https://doi.org/10.1056/NEJMp1314868
- 97 Patel, A., R. Rajkumar, J. M. Colmers, D. Kinzer, P. H. Conway, and J. M. Sharfstein. 2015. "Maryland's Global Hospital Budgets--Preliminary Results from an All-Payer Model." N Engl J Med 373 (20): 1899-901. https://doi.org/10.1056/NEJMp1508037
- 98 Kastor J. A., and E. Y. Adashi. 2011. "Maryland's Hospital Cost Review Commission at 40: A Model For The Country." *JAMA* 306 (10): 1137-8. https://doi.org/10.1001/jama.2011.1311
- 99 Rajkumar, R., A. Patel, K. Murphy, J. M. Colmers, J. D. Blum, P. H. Conway, and J. M. Sharfstein. 2014. "Maryland's all-payer approach to delivery-system reform." N Engl J Med 370 (6): 493-5. https://doi.org/10.1056/NEJMp1314868
- 100 Galarraga, J. E., B. Black, L. Pimentel, A. Venkat, J. P. Sverha, W. J. Frohna, D. L. Lemkin, and J. M. Pines. 2020. "The Effects of Global Budgeting on Emergency Department Admission Rates in Maryland." Ann Emerg Med 75 (3): 370-381. https://doi.org/10.1016/j.annemergmed.2019.06.009
- 101 The Health Care Transformation Task Force. n.d. "What's in a Name: A Primer on Global Budget Models." Retrieved from https://hcttf.org/wp-content/uploads/2019/09/ HCTTF-Whats-in-a-Name-A-Primer-on-Global-Budget-Models-2.pdf
- 102 Sharfstein, J. M., E. A. Stuart, and J. Antos. 2018. "Global Budgets in Maryland: Assessing Results to Date." JAMA 319 (24): 2475-2476. https://doi.org/10.1001/jama.2018.5781
- 103 Galarraga, J. E., W. J. Frohna, and J. M. Pines. 2019. "The Impact of Maryland's Global Budget Payment Reform on Emergency Department Admission Rates in a Single Health System." Acad Emerg Med 26 (1): 68-78. https://doi. org/10.1111/acem.13507
- 104 Ibid.

- Neiman, P.U., T.C. Tsai, R.W. Bergmark, A. Ibrahim, H. Nathan, and J.W. Scott. 2021. "The ACA at 10 Years: Evaluating the Evidence and Navigating an Uncertain Future." J Surg Res 263: 102-109. doi: https://doi.org/10.1016/j.jss.2020.12.056
- 106 Sapra. K. J., K. Wunderlich, and H. Haft. 2019. "Maryland Total Cost of Care Model: Transforming Health and Health Care." JAMA 321 (10) (March 12): 939-940. doi:10.1001/jama.2019.0895 [doi].
- 107 Ibid.
- Maryland Department of Health. 2018. "Maryland Primary Care Program FAQs." Retrieved from https://health.maryland.gov/mdpcp/Documents/ MDPCP%20FAQs%20-%20State%20Guidance.pdf
- Maryland Department of Health and Mental Hygiene. 2018. "Maryland Primary Care Program Care Transformation Organization (CTO) Information - Providing Care Transformation Assistance and Supplemental Staffing for MDPCP Practices." Retrieved from https://health.maryland.gov/mdpcp/Documents/ MDPCP%20FAQs%20-%20State%20Guidance.pdf
- 110 Kangovi, S., J. A. Long, and E. Emanuel. 2012. "Community Health Workers Combat Readmission." Archives of Internal Medicine 172 (22) (December 10): 1756-1757. doi:1389243 [pii]. https://doi.org/10.1001/2013.jamainternmed.82
- Hogan, L., K.B. Rutherford, V.T. Mitchell, and A. Redmer Jr. 2015. "Workgroup on Workforce Development for Community Health Workers." Maryland Department of Health and Mental Hygiene, Maryland Insurance Administration. Retrieved from https://insurance.maryland.gov/Documents/newscenter/legislativeinformation/workgroup-on-workforce-development-for-community-health-workers-dhmh-and-mia-june-2015.pdf
- 112 MD Health-Gen Code § 13-3701-3709 (2019). Maryland Community Health Workers Act. Retrieved from https://pophealth.health.maryland.gov/Community-Health-Workers/Documents/CHW-Code-13-37.pdf
- Hogan, L., K.B. Rutherford, V.T. Mitchell, and A. Redmer Jr. 2015. "Workgroup on Workforce Development for Community Health Workers." Maryland Department of Health and Mental Hygiene, Maryland Insurance Administration. Retrieved from https://insurance.maryland.gov/Documents/newscenter/legislativeinformation/workgroup-on-workforce-development-for-community-health-workers-dhmh-and-mia-june-2015.pdf
- 114 Ibid
- 115 MD Health-Gen Code § 13-3701-3709 (2019). Maryland Community Health Workers Act. Retrieved from https://pophealth.health.maryland.gov/Community-Health-Workers/Documents/CHW-Code-13-37.pdf
- MD Code Reg 10.68.01 (2018). Certification of Community Health Workers. Retrieved from www.dsd.state.md.us/ comar/subtitle_chapters/10_Chapters.aspx#Subtitle68f
- MD Code Reg 10.68.02 (2018). Community Health Worker Certification Training Programs. Retrieved from www.dsd.state.md.us/comar/subtitle_chapters/10_ Chapters.aspx#Subtitle68
- 118 Gary, T. L., L. R. Bone, M. N. Hill, D. M. Levine, M. McGuire, C. Saudek, and F. L. Brancati. 2003. "Randomized Controlled Trial of the Effects of Nurse Case Manager

- and Community Health Worker Interventions On Risk Factors for Diabetes-Related Complications In Urban African Americans." *Prev Med* 37 (1): 23-32. https://doi.org/10.1016/s0091-7435(03)00040-9
- Bone, L. R., J. Mamon, D. M. Levine, J. M. Walrath, J. Nanda, H. T. Gurley, E. K. Noji, and E. Ward. 1989. "Emergency Department Detection and Follow-Up of High Blood Pressure: Use and Effectiveness of Community Health Workers." Am J Emerg Med 7 (1): 16-20. https://doi.org/10.1016/0735-6757(89)90077-6
- 120 Fedder, D. O., R. J. Chang, S. Curry, and G. Nichols. 2003. "The Effectiveness of a Community Health Worker Outreach Program on Healthcare Utilization of West Baltimore City Medicaid Patients with Diabetes, with or without Hypertension." *Ethnicity & Disease* 13 (1) (January 01): 22-27.
- Berkowitz, S. A., S. Parashuram, K. Rowan, L. Andon, E. B. Bass, M. Bellantoni, D. J. Brotman, A. Deutschendorf, L. Dunbar, S. C. Durso, A. Everett, K. D. Giuriceo, L. Hebert, D. Hickman, D. E. Hough, E. E. Howell, X. Huang, D. Lepley, C. Leung, Y. Lu, C. G. Lyketsos, S. M. E. Murphy, T. Novak, L. Purnell, C. Sylvester, A. W. Wu, R. Zollinger, K. Koenig, R. Ahn, P. B. Rothman, P. M. C. Brown, and Team Johns Hopkins Community Health Partnership. 2018. "Association of a Care Coordination Model With Health Care Costs and Utilization: The Johns Hopkins Community Health Partnership (J-CHiP)." JAMA Netw Open 1 (7): e184273. https://doi.org/10.1001/jamanetworkopen.2018.4273
- 122 Islam, N., S. K. Nadkarni, D. Zahn, M. Skillman, S. C. Kwon, and C. Trinh-Shevrin. 2015. "Integrating community health workers within Patient Protection and Affordable Care Act implementation." J Public Health Manag Pract 21 (1): 42-50. https://doi.org/10.1097/ phh.00000000000000084
- Hussein, C. A., M. Luckner, R. Samson, K. Matsuoka, D. A. Mann, R. Rekhi, E. Richardson, J. A. Hurson, E. A. Reece, and J. M. Sharfstein. 2014. "Working with communities to achieve health equity in Maryland's five Health Enterprise Zones." J Health Care Poor Underserved 25 (1 Suppl): 4-10. https://doi.org/10.1353/hpu.2014.0057
- 124 Maryland Matters. 2021. "New Grant Program Will Reduce Health Care Inequality, Advocates Say." Retrieved from https://www.marylandmatters.org/2021/04/15/ new-grant-program-will-reduce-health-care-inequalityadvocates-say/
- Maryland General Assembly. 2021. "Maryland Health Equity Resource Act." Retrieved from http://mgaleg.maryland.gov/mgawebsite/Legislation/Details/sb0172
- 126 Health Care for All. 2021. "Health Equity Resource Communities Resolution." Retrieved from https://healthcareforall.com/equityresolution/
- 127 Baltimore Population Health Workforce Collaborative. 2015. "HSCRC Population Health Workforce Support for Disadvantaged Areas." Retrieved from https://hscrc.maryland.gov/Documents/md-maphs/rfp-pwsda/BPHWC-application-with-revised-budget.pdf
- 128 Health Services Cost Review Commission.

 "Recommendation and Report on Population Health
 Workforce Support for Disadvantaged Areas (PWSDA)

 Activities for Fiscal Years 2017 and 2018." 2018.

 Retrieved from https://hscrc.maryland.gov/Documents/
 Modernization/2a.%20PWSDA%20Draft%20Report%20
 and%20Recommendation%20APPROVED%20112018.pdf

- 129 Rockefeller Foundation. 2020. "New 'Baltimore Health Corps' to Hire and Train Hundreds of Jobless Residents to Serve Neighborhoods Hardest-Hit by Covid-19." Retrieved from www.rockefellerfoundation.org/news/new-baltimore-health-corps-to-hire-and-train-hundreds-of-jobless-residents-to-serve-neighborhoods-hardest-hit-by-covid-19/
- 130 Workforce Support for Disadvantaged Areas (PWSDA) Activities for Fiscal Years 2017 and 2018." 2018. Retrieved from https://hscrc.maryland.gov/Documents/Modernization/2a.%20PWSDA%20Draft%20Report%20 and%20Recommendation%20APPROVED%20112018.pdf
- 131 Baltimore Population Health Workforce Collaborative. 2015. "HSCRC Population Health Workforce Support for Disadvantaged Areas." Retrieved from https://hscrc.maryland.gov/Documents/md-maphs/rfp-pwsda/BPHWC-application-with-revised-budget.pdf
- Health Services Cost Review Commission.

 "Recommendation and Report on Population Health
 Workforce Support for Disadvantaged Areas (PWSDA)

 Activities for Fiscal Years 2017 and 2018." 2018.

 Retrieved from https://hscrc.maryland.gov/Documents/
 Modernization/2a.%20PWSDA%20Draft%20Report%20
 and%20Recommendation%20APPROVED%20112018.pdf
- 133 Melvin A. Wilson, Executive Director, Turnaround Tuesday, telephone conversation with lead author, July 14, 2021.
- 134 Health Services Cost Review Commission.

 "Recommendation and Report on Population Health
 Workforce Support for Disadvantaged Areas (PWSDA)

 Activities for Fiscal Years 2017 and 2018." 2018.
 Retrieved from https://hscrc.maryland.gov/Documents/
 Modernization/2a.%20PWSDA%20Draft%20Report%20
 and%20Recommendation%20APPROVED%20112018.pdf
- 135 Dylan H. Roby, Ph.D., M. Phil, telephone conversation with lead author, February 4, 2021.
- 136 Kangovi, Shreya and Blackstock, Uche. 2020. "Community Health Workers Are Essential In This Crisis. We Need More Of Them." Washington Post. July 3. https://www.washingtonpost.com/opinions/2020/07/03/community-health-workers-are-essential-this-crisis-weneed-more-them/ (Accessed March 1, 2021)
- 137 Ibe, Chidinma A., Debra Hickman, and Lisa A. Cooper. 2021. "To Advance Health Equity During COVID-19 and Beyond, Elevate and Support Community Health Workers." JAMA Health Forum 2 (7): e212724-e212724. https://doi.org/10.1001/jamahealthforum.2021.2724
- Sugarman, M., E. Pascaline, and A. Wennerstrom. 2020. "The Louisiana Community Health Worker Workforce Study Committee Report – Final Report, May 2020." Center for Healthcare Value and Equity, Louisiana State University Health Sciences Center. Retrieved from https://www.medschool.lsuhsc.edu/chve/docs/Updated%20 CHW%20Workforce%20Study%20Report%20-%20 May%202020.pdf
- 139 Minnesota Community Health Worker Alliance. 2018
 "The State of the Community Health Worker Field in
 Minnesota." Retrieved from https://mnchwalliance.org/wp-content/uploads/2019/01/MNCHWA_State-of-the-CHW-Field_Dec_21_2018.pdf
- 140 Health Services Cost Review Commission. 2021. Regional Partnership Catalyst Program. Retrieved from https://hscrc.maryland.gov/Pages/regional-partnerships.aspx

ABELL

FOUNDATION

111 South Calvert Street, Suite 2300 Baltimore, Maryland 21202-6174



Published by the Abell Foundation Volume 34, Number 6

Advancing and Sustaining the Community Health Worker Workforce in Baltimore City: A Call to Action for Key Stakeholders

by Chidinma A. Ibe, Ph.D, and Obie S. McNair, MPH

About the Abell Foundation

The Abell Foundation is dedicated to the enhancement of the quality of life in Maryland, with a particular focus on Baltimore. The Foundation places a strong emphasis on opening the doors of opportunity to the disenfranchised, believing that no community can thrive if those who live on the margins of it are not included.

Inherent in the working philosophy of the Abell Foundation is the strong belief that a community faced with complicated, seemingly intractable challenges is well-served by thought-provoking, research-based information. To that end, the Foundation publishes background studies of selected issues on the public agenda for the benefit of government officials; leaders in business, industry and academia; and the general public.

For a complete collection of Abell publications, please visit our website at www.abell.org/publications